BENGAL SECRETARIAT LIBRARY

PROGRESS

OF

EDUCATION IN INDIA

1887-88 to 1891-92.

SECOND QUINQUENNIAL REVIEW

BY

A. M. NASH, Esq., M.A.,
PROFESSOR, PRESIDENCY COLLEGE, CALCUTTA

CALCUTTA:
OFFICE OF THE SUPERINTENDENT OF GOVERNMENT PRINTING, INDIA.
1893.

CALCUTTA:
GOVERNMENT OF INDIA CENTRAL PRINTING OFFICE.
8, HASTINGS STREET.

CONTENTS.

[The figures in the last column indicate the corresponding paragraphs of Sir Alfred Croft's Review.]

CHAPTER I.—PRELIMINARY.

PARA.		PAGE	PARA.
1.	Scope of the Report	1	1—2
2.	Period covered by the Report	1	3
3.	Order of Subjects	2	4—5
4.	Maps	2	...

CHAPTER II.—GENERAL SUMMARY.

5.	General Statistics of Attendance	3	87
6.	Proportion of Scholars to Population: Explanation of the Maps	4	88
7.	Comparison of Educational Statistics with the Census Tables	7	...
8.	Schools classified according to Standard of Instruction	9	89
9.	Scholars classified according to Stage of Instruction	11	90
10.	General Estimate of Progress, 1887 to 1892	12	91
11.	Schools classified according to Management	14	92
12.	Race and Creed of Scholars	16	93
13.	Meaning of the "School-going Age"	18	94
14	Languages learnt by Scholars	21	95
15.	General Statistics of Expenditure	23	96
16	Provincial Expenditure	26	97
17.	Proportionate Expenditure from Public and Private Funds	29	98
18.	Expenditure on Scholarships	32	...
19.	Average Cost of the Education of each Pupil	34	99

CHAPTER III.—CONTROLLING AGENCIES.

20.	Plan of the Chapter	35	...
21.	Strength of the Inspecting Staff	35	101—102
22.	Ditto ditto Madras	36	101—102
23.	Ditto ditto Bombay	36	101—102
24.	Ditto ditto Bengal	36	101—102
25.	Ditto ditto North-Western Provinces	37	101—102
26.	Ditto ditto Punjab	37	101—102
27	Ditto ditto Central Provinces	38	101—102
28.	Ditto ditto Burma	38	101—102
29.	Ditto ditto Other Provinces	39	101—102
30.	Cost of Direction and Inspection	39	...
31.	Duties of Inspectors and their Subordinates, Madras	41	103
32.	Ditto ditto Bengal	42	103
33.	Ditto ditto North-Western Provinces	42	103
34.	Ditto ditto Punjab	43	103
35.	Ditto ditto Other Provinces	43	103
36.	Other Controlling Agencies	43	100
37.	Ditto ditto, Madras	44	107—108
38.	Ditto ditto, Bombay	44	109—110
39.	Ditto ditto, Bengal	45	111—112
40.	Ditto ditto, North-Western Provinces	46	113—114
41.	Ditto ditto, Punjab	47	115—116
42.	Ditto ditto, Central Provinces	48	117—118
43.	Ditto ditto, Burma	49	119—120
44.	Ditto ditto, Other Provinces	50	121—123

CHAPTER IV.—COLLEGIATE EDUCATION.

45.	The Indian Universities	51	30
46.	The Madras University	52	31
47.	The Bombay University	53	32
48.	The Calcutta University	54	33
49.	The Punjab University	55	34
50.	The Allahabad University	56	...
51.	Financial Position of the Universities	57	...
52.	Arts Colleges, English	58	130
53.	Attendance in Arts Colleges	61	130
54.	Classification of Arts Colleges according to Management and Grade	63	131

Para.		Page	Para.
55.	Expenditure in Arts Colleges, English	63	132
56.	Expenditure from Public Funds	65	133
57.	Fees in Arts Colleges	67	134
58.	Proportion of Fee-receipts to total Expenditure	69	135
59.	Expenditure from other sources	70	136
60.	Results of University Examinations in Arts	70	137
61.	Proportion of Graduates to Matriculated Students	72	...
62.	Comparative Popularity of the B.A. Courses in Literature and Science	72	138—139
63.	Ditto ditto ditto Madras	73	
64.	Ditto ditto ditto Bombay	73	
65.	Ditto ditto ditto Calcutta	73	
66.	Ditto ditto ditto Allahabad	73	
67.	Ditto ditto ditto Punjab	74	
68.	Comparative Success of Government and other Colleges	74	140
69.	M.A. Examination	75	141
70.	B.A. Examination	76	142
71.	Provision of Scientific Instruction	77	143
72.	Extension of Collegiate Education	77	146
73.	Grants to Aided Colleges	78	147
74.	Employment of Indian Graduates	78	148
75.	Withdrawal of Government from the direct Management of Colleges	79	149
76.	Scholarships	80	150
77.	Oriental Colleges	80	151
78.	Oriental College, Lahore	81	152
79.	Benares Sanskrit College	82	151
80.	Canning College, Lucknow	83	151
81.	Sanskrit College, Calcutta	83	153

Chapter V.—SECONDARY EDUCATION.

82.	Character and Scope of Secondary Education	85	154
83.	Different Classes of Secondary Schools	85	155
84.	Secondary Schools for Boys, English	86	156
85.	Attendance in English Secondary Schools for Boys	89	157
86.	English Secondary Schools: Control	90	158
87.	Secondary Schools for Boys, Vernacular	92	159
88.	Attendance in Vernacular Secondary Schools for Boys	93	159
89.	Vernacular Secondary Schools: Control	94	159
90.	Stages of Instruction in Secondary Schools	94	160
91.	Explanation of the Maps	99	...
92.	The Teaching of English in Secondary Schools	99	161
93.	The Medium of Instruction in Secondary Schools	100	162
94.	Results of Examinations in Secondary Schools. High Schools	102	163
95.	Middle School Examination	106	164
96.	Expenditure in Secondary Schools for Boys, English	108	165
97.	Ditto ditto ditto, Vernacular	111	165
98.	Secondary Education in Madras	113	167—168
99.	Ditto in Bombay	117	
100.	Ditto in Bengal	119	
101.	Ditto in the North-Western Provinces	121	
102.	Ditto in the Punjab	122	
103.	Ditto in the Central Provinces	123	
104.	Ditto in other Provinces	124	
105.	Qualifications of Teachers	125	169
106.	Fees in Secondary Schools	127	170
107.	Average Incidence of Fees	129	...
108.	Scholarships in Secondary Schools	130	171
109.	The Further Extension of Secondary Education, and the withdrawal of Government in favour of Private Managers	132	172—173

Chapter VI.—PRIMARY EDUCATION.

110.	Character and Scope of Primary Education	137	174
111.	Explanation of the Maps	138	...
112.	Primary Schools for Boys	138	175
113.	Systems of Primary Education: Departmental Schools	142	176
114.	Board Schools	143	177
115.	Aided Schools	144	178
116.	Unaided Schools	150	179
117.	Primary Education in Burma	152	180
118.	Provincial Standards of Examination for Primary Schools	156	181
119.	Comparative Progress as tested by Public Examinations	159	182

Para.		Page	Para.
120.	Expenditure in Primary Schools for Boys	162	183
121.	Comparative Cost of Primary Schools	163	184
122.	Ditto ditto and Primary Departments	166	185
123.	Recommendations of the Commission as to Primary Education	166	186
124.	Superior Claims of Primary Education upon Public Effort and Public Funds	167	187—188
125.	Provincial, Local, and Municipal Expenditure in 1891-92	169	187—188
126.	Agencies and Means for extending Primary Education	173	189
127.	Special Measures for Aboriginal and Backward Races	177	190
128.	Methods of aiding Primary Schools	185	191
129.	Revision of Standards	186	192
130.	Physical, Moral, and Religious Instruction	187	193
131.	Fees and Exemptions	187	194
132.	Night Schools	190	195

Chapter VII.—TRAINING SCHOOLS.

133.	Different Classes of Training Schools	191	...
134.	Training Schools for Masters	192	199
135.	Ditto for Mistresses	194	200
136.	Examinations for Teachers' Certificates	195	199—200
137.	Expenditure on Training Schools	196	201
138.	Training Schools in Madras	198	202
139.	Ditto in Bombay	201	203
140.	Ditto in Bengal	202	204
141.	Ditto in the North-Western Provinces	204	205
142.	Ditto in the Punjab	206	206
143.	Ditto in the Central Provinces	208	207
144.	Ditto in Burma	210	207
145.	Ditto in other Provinces	210	207
146.	Recommendations of the Commission as to Training Schools	211	208
147.	Special Reqiurements for Teachers in Secondary Schools	213	209
148.	Training of Teachers for Girls' Schools	215	241

Chapter VIII.—TECHNICAL EDUCATION.

149.	Plan of the Chapter	217	198 & 210
150.	Mr. MacDonnell's Note	218	228
151.	Law Colleges and Schools	220	211—212
152.	Action taken upon the Recommendation	220	212
153.	Expenditure in Law Colleges	222	216
154.	Results of University Examinations in Law	223	215
155.	Medical Colleges and Schools	223	211 & 218
156.	Action taken upon the Recommendations	224	213 & 220
157.	Expenditure in Medical Colleges and Schools	228	216
158.	Results of University Examinations in Medicine	229	217
159.	Second Group of Recommendations—Preparatory Technical Education	229	...
160.	Action taken in Madras	230	...
161.	Ditto in Bombay	231	...
162.	Ditto in Bengal	232	...
163.	Ditto in the North-Western Provinces 2	233	...
164.	Ditto in the Punjab	233	...
165.	Ditto in the Central Provinces	234	...
166.	Ditto in other Provinces	236	...
167.	Third Group of Recommendations—Technical Education Proper	237	...
168.	The Madras Scheme of Technical Education	237	225
169.	Madras College of Engineering	243	214
170.	Victoria Technical Institute, Madras	244	...
171.	Madras School of Arts	244	219
172.	Madras College of Agriculture, Saidapet	245	85
173.	Industrial and other Special Schools, Madras	246	222—223
174.	The Bombay Scheme (including the Victoria Technical Institute and the School of Art)	247	219 & 226
175.	Poona College of Science	250	214
176.	Agricultural Classes, Bombay	253	55
177.	Veterinary College, Bombay	253	...
178	Industrial Schools, Bombay	253	222
179.	Action taken in Bengal	254	227
180.	Seebpore Engineering College	258	214
181.	Calcutta School of Art	260	219
182.	Industrial Schools in Bengal	261	222
183.	Action taken in the North-Western Provinces	262	...
184.	Thomason Engineering College, Roorkee	264	214
185.	Other Special Schools in the North-Western Provinces	265	223

Para.		Page	Para.
186.	Action taken in the Punjab	266	...
187.	Mayo School of Industrial Art, Lahore	268	219
188.	Lahore Veterinary College	268	223
189.	Action taken in the Central Provinces	269	...
190.	Nagpur Engineering Class	270	...
191.	Nagpur Agricultural Class	270	...
192.	Action taken in Burma	271	...
193.	Ditto in other Provinces	272	...
194.	Attendance in Special Schools	274	218

CHAPTER IX.—FEMALE EDUCATION.

195.	Difficulties in the way of Female Education	277	229
196.	Explanation of the Maps	277	...
197.	Primary Schools for Girls	279	230
198.	Secondary Schools for Girls	281	231
199.	Stages of Instruction	282	231
200.	Higher Education of Women	284	232
201.	Race and Creed of Girls at School	284	233
202.	Expenditure in Girls' Schools	286	234
203.	Female Education in Madras	287	235
204.	Ditto ditto in Bombay	289	235
205.	Ditto ditto in Bengal	290	235
206.	Ditto ditto in the North-Western Provinces	292	235
207.	Ditto ditto in the Punjab	294	235
208.	Ditto ditto in the Central Provinces	295	235
209.	Ditto ditto in Burma	296	235
210.	Ditto ditto in other Provinces	297	235
211.	Recommendations of the Commission as to Female Education	298	236
212.	Grant-in-aid Rules	298	238
213.	Mixed Schools	298	239
214.	District and Municipal Boards	300	240
215.	Teachers in Girls' Schools	300	241
216.	Zenana Agencies, etc.	301	242

CHAPTER X.—EUROPEAN EDUCATION.

217.	Introductory	303	...
218.	Code of Regulations for European Schools in the Bengal Presidency	303	247—249
219.	Results of the Introduction of the Code	305	251 & 254
220.	Grant-in-aid Rules in Provinces not under the Bengal Code	306	250
221.	Number of Europeans under Instruction	307	252
222.	Stages of Instruction	308	...
223.	University Education	311	...
224.	Secondary Schools for Europeans	312	...
225.	Primary Schools for Europeans	313	...
226.	Expenditure in European Schools	313	253
227.	Final Examination of High Schools	315	249
228.	Scholarships for Europeans and Eurasians	317	...
229.	Technical Schools for Europeans	317	...
230.	Bruce Institution	318	256

CHAPTER XI.—MUHAMMADAN EDUCATION.

231.	Introductory	319	...
232.	Progress of Education among Muhammadans	319	260
233.	Classification of Muhammadan Pupils	322	261
234.	Progress of Muhammadans in different Provinces	323	262
235.	Success at University Examinations	324	263
236.	Recommendations of the Commission as to Muhammadans	326	264
237.	Muhammadan Education in Madras	326	265
238.	Ditto ditto in Bombay	328	266
239.	Ditto ditto in Bengal	328	267
240.	Ditto ditto in the North-Western Provinces	330	268
241.	Ditto ditto in the Punjab	330	269
242.	Ditto ditto in other Provinces	333	269

CHAPTER XII.—EDUCATION OF NATIVE CHIEFS AND NOBLEMEN.

243.	Rajkumar Colleges and Schools	335	...

CONTENTS.

Para.		Page	Para.
	Chapter XIII.—PRIVATE INSTITUTIONS.		
244.	Meaning of the term	337	270
245.	Recommendations of the Commission	337	271
246.	Scholars in Private Institutions	338	272
247.	Koran Schools	339	...
248.	Provincial Returns of Private Schools	340	273
249.	Private Schools in Madras	341	274
250.	Ditto in Bombay	342	275
251.	Ditto in Bengal	342	276
252.	Ditto in the North-Western Provinces	345	277
253.	Ditto in the Punjab	345	278
254.	Ditto in other Provinces	345	...
	Chapter XIV.—DISCIPLINE AND MORAL TRAINING.		
255.	Orders of the Government of India	349	...
256.	Physical Training	350	...
257.	Punishment for Breaches of School Discipline	352	...
258.	Conduct Registers	354	...
259.	Boarding-houses for Students	355	281
260.	The Monitorial System	357	...
261.	Age limit for different classes	359	...
262.	Inter-School Rules	359	281
263.	Moral Text-Book	361	282
264.	Discipline in Colleges	364	...
	Chapter XV.—EDUCATIONAL CONFERENCES.		
265.	Recommendations of the Commission	367	286 & 288
266.	Educational Conferences: Madras	367	289
267.	Ditto Punjab	368	293
268.	Ditto Burma	368	294
269.	Ditto in other Provinces	369	290—292
	Chapter XVI.—PREPARATION AND DISTRIBUTION OF TEXT-BOOKS.		
270.	Recommendations of the Commission	371	...
271.	Text-Books in Madras	371	...
272.	Ditto in Bombay	372	...
273.	Ditto in Bengal	373	...
274.	Ditto in the North-Western Provinces	374	...
275.	Ditto in the Punjab	374	...
276.	Ditto in the Central Provinces	376	...
277.	Ditto in Burma	376	...
278.	Ditto in other Provinces	376	...

MAPS.

India showing the percentage of children under instruction . . . . to follow p. 2
Ditto ditto of boys in the secondary stage of instruction 84
Ditto ditto of boys in the primary stage of instruction 136
Ditto ditto of girls under instruction in public institutions . . . 276

STATISTICAL TABLES.

I.—Abstract Return of Colleges, Schools, and Scholars in the several Provinces in India for 1891-92 379
II.—Abstract Return of Expenditure on Public Instruction in the several Provinces in India for 1891-92 381
III.—Return of Colleges, Schools, and Scholars in the several Provinces in India for 1891-92 383
IV.—Return of Expenditure on Public Instruction in the several Provinces in India for 1891-92 385
V.—Return of the Stages of Instruction of Pupils in Public Schools for General Education in the several Provinces in India for 1891-92 387
VI.—Return showing the Results of prescribed Examinations in the several Provinces in India for 1891-92 389
VII.—Return showing the distribution of Local Fund and Municipal Expenditure on Public Instruction in the several Provinces in India for 1891-92 391

BENGAL SECRETARIAT LIBRARY

PROGRESS OF EDUCATION IN INDIA.

1887-88 to 1891-92.

SECOND QUINQUENNIAL REVIEW.

CHAPTER I.

PRELIMINARY.

1. Scope of the Report.—The following report is written in obedience to the orders of the Government of India contained in the Home Department letter No. 50, dated the 8th February 1893. These orders were that the report "should be a compendium, in continuation of Sir Alfred Croft's Report of 1886, of the information supplied by the different Local Governments as regards the condition of education in each province, the methods and organization by which it is imparted, and the extent to which effect is being given to the recommendations of the Education Commission." In accordance with these instructions I have endeavoured to extract from the departmental reports of each province the most important facts connected with the history of education, and statistics to show the nature and extent of the progress made during the last five years. I have also quoted freely the opinions of the educational authorities on various questions, especially those on which the opinions of Local Governments have been invited by the Government of India, but have tried to avoid any criticism of the opinions quoted, or of the action taken in different provinces. As this report is merely a continuation of the one written in 1886, no attempt has been made to render it complete in itself; a brief account of the state of education in 1885-86, as described by Sir Alfred Croft, has been given wherever this was necessary to elucidate the account of subsequent events, but the object mainly kept in view has been to give a record of progress rather than a description of the present state of education in India.

2. Period covered by the Report.—The statistical tables given in the last report refer to the close of the year 1885-86, but by means of the Resolutions of the Local Governments on the provincial reports, Sir Alfred Croft was enabled to give an account of the most important events and declarations of educational policy down to the end of 1886, while the Resolution of the Government of India gave the most important statistics for 1886-87. More detailed statistics for the latter year are shown in the tables given in the text of the present report, and these are compared with the corresponding figures for 1891-92, so as to indicate the progress made during the five years commencing on the 1st April 1887 and ending on the 31st March 1892, the period covered by the report. In some cases it has been necessary to go back a little farther to give an account of events that occurred after the last report was written, and in a few instances

I have encroached upon the period to be covered by the next report, in order to give the final decision on questions under consideration at the end of 1891-92.

3. Order of Subjects.—In order to facilitate reference, the chapters of the present report are arranged in the same order as the sections of Chapter III of the earlier one, and in most of the chapters the order of the paragraphs has been followed as closely as possible. This is not the case in Chapters III, VIII, X, and XIV; in the chapter on Controlling Agencies I have given greater prominence to the nature of the control exercised, and less to the statistics regarding the number of institutions over which that control is exercised, and the expenditure upon them, since this information is given in other parts of the report. The plan of Chapters VIII and XIV has been altered in order to show the action taken in each province on the recommendations of the Government of India on the important subjects of Technical Education and Discipline and Moral Training. For the last three years the provincial reports have contained separate tables for schools intended for Europeans and Eurasians, and this has enabled me to give more detailed statistics in Chapter X. Two new chapters have been added to the report, one dealing with schools for the education of sons of Chiefs, and the other with text-books. In the table of contents will be found references to the paragraphs of Sir Alfred Croft's Review which correspond to those of the present report.

4. Maps.—Maps have been prefixed to Chapters II, V, VI, and IX showing the state of education in each province in 1887 and in 1892. These maps would have been more useful if statistics had been available for each division instead of each province; these statistics might have been obtained for 1892, but this would have involved considerable delay in the submission of the report, and the maps for 1887 would have been of no value for purposes of comparison. The statistics represented by the maps are shown in paragraphs 6, 91, 111, and 191.

CHAPTER II.

GENERAL SUMMARY.

5. General Statistics of Attendance.—The following table, compiled from General Table III, shows the number of schools and colleges in India and the number of pupils in them at the end of each year from 1886-87 to 1891-92:—

Class of Institutions.	1886-78.		1887-88.		1888-89.		1889-90.		1890-91.		1891-92.	
	Institutions.	Pupils.	Institutions.	Pupils.	Institutions.	Pupils.	Institutions.	Pupils.	Institutions.	Pupils.	Institutions.	Pupils.
A.—Public Institutions.												
Colleges — Arts	89	8,764	99	10,328	98	11,250	103	11,219	105	12,165	104	12,985
Colleges — Professional	25	(a)2,737	26	2,861	26	2,691	29	3,049	31	3,424	37	3,292
Secondary Schools for — Boys	4,160	404,189	4,226	416,231	4,335	424,617	4,487	438,356	4,521	434,511	4,438	438,988
Secondary Schools for — Girls	357	24,904	345	25,645	364	27,441	407	30,797	449	34,025	434	34,306
Primary Schools for — Boys	84,673	2,381,217	84,920	2,415,569	82,908	2,425,640	84,145	2,452,044	89,504	2,553,202	91,881	26,80,424
Primary Schools for — Girls	4,514	132,717	4,488	134,815	4,554	137,654	4,393	1,35,650	4,590	141,484	5,228	157,183
Special Schools	470	16,331	532	16,272	580	17,958	599	20,389	575	20,401	554	21,732
Total Public Institutions	94,288	2,970,859	94,636	3,021,721	92,865	3,047,251	94,163	3,091,504	99,775	3,199,212	102,676	3,348,910
B.—Private Institutions.												
Advanced	7,678	77,379	7,762	77,351	7,235	80,690	6,573	82,617	5,489	66,727	5,559	69,051
Elementary — For Boys	23,383	278,101	30,727	361,772	30,008	394,223	32,892	437,922	31,478	399,354	32,516	424,938
Elementary — For Girls	1,767	17,205			1,601	22,093	1,082	14,347	1,312	17,414	1,042	13,922
Total Private Institutions	32,828	372,685	38,489	439,123	38,844	497,006	40,547	534,886	38,279	483,495	39,117	507,911
Grand Total	127,116	3,343,544	133,125	3,460,844	131,709	3,544,257	134,710	3,626,390	138,054	3,682,707	141,793	3,856,821

(a) Exclusive of 24 pupils in the Law classes of the North-Western Provinces not included in the provincial returns and of one Law school with 71 pupils in the Punjab which, though shown as a college in the chapter on special institutions later on, has been here included in "special schools" according to the plan adopted in the provincial report for the year.

From this table it appears that the total number of institutions of all classes has increased by 14,677, or 11·5 per cent., and the number of persons under instruction by 513,277, or 15·3 per cent. During the previous five years the increase in the number of scholars was much greater; but it is useless to enter into any comparison of the figures, since private institutions were not generally included in the returns before 1883-84. Excluding these institutions, so as to eliminate this disturbing factor, the number of pupils in public institutions has increased by 378,051, or 12·7 per cent., while in the years 1882 to 1887 the increase was 575,788, or 24 per cent. On the whole, the increase of attendance is little more than half what it was in the previous quinquennium, but it is very unequally distributed over the five years. In the first three years the annual rate of increase in public institutions was from 0·8 to 1·7 per cent., but in 1890-91 it rose to 3·5, and in the following year to 4·7, which is above the average of the previous five years.

In each of the seven classes of public institutions included in the table there is an increase, both in the number of institutions and in the attendance, the rate of increase being greatest in the case of Arts colleges, 48·2 per cent., and least in the case of secondary schools for boys, 8·6 per cent. Except in professional colleges, the gain in the number of pupils is proportionately greater than the increase in the number of institutions, so that the average strength of an institution was higher in 1892 than in 1887. Under the head of University education there is a gain of 15 Arts and 12 professional colleges, of 4,221 students in the former, and of 555 in the latter. Under the head of secondary education there is an increase of 278 schools for boys, and of 77 schools for girls, while the increase in the number of pupils amounts to 34,709 and 9,402 respectively. Primary schools for boys show a gain of 7,208 institutions and 299,207 pupils, and primary schools for girls a gain of 714 institutions and of 24,466 pupils. These figures must not be taken as showing the increase in the number of boys and girls at school, for it will be shown later that more than a third of the girls under instruction are found in schools for boys, and that the number of girls is increasing more rapidly in boys' schools than in girls' schools. Special schools show a gain of 84 institutions and 5,401 pupils. Under this head are included training schools for teachers, technical schools of various kinds, and some schools that do not come under the definition of any of the other classes.

Under the head of private institutions are included all schools that have not adopted departmental standards and a few schools which, though teaching in accordance with standards prescribed or accepted by the Department, are not recognised as primary, secondary, or special schools. The information regarding these schools is necessarily incomplete, for the inspecting staff is not strong enough to search for the schools and obtain statistics, while the managers derive no benefit from the submission of returns, and therefore often fail to do so, unless visited by an inspecting officer. Under the head of institutions for advanced teaching there is a loss of 2,119 schools and 8,328 pupils: this is due to the transfer of a large number of Koran schools to the head of elementary schools. In the last-named class there is a gain of 9,133 schools for boys and of 146,837 pupils, and a loss of 725 girls' schools and 3,283 pupils: this loss is completely accounted for by a large decrease in the number of Koran schools in the Punjab, which is partly due to incomplete registration, and partly to the exclusion of schools with less than six scholars.

6. Proportion of Scholars to Population; Explanation of the Maps.—The following table shows for each province of India the total number of scholars, male and female, in 1887 and in 1892, and the proportion borne by that number to the total number of children of school-going age, the latter

number being assumed to be 15 per cent. of the total population. In the last Review Sir Alfred Croft said, "This conventional percentage has very little connexion with the facts of scholastic life in India;" but in a later paragraph an attempt will be made to show that it gives a fair approximation to the number of children who ought to be at school, if a suitable form of education could be provided for all classes of the people throughout the country, though it is altogether misleading when applied to particular sections of the community. The figures in the table have been taken from General Table I of the provincial reports, but in several provinces that table gave the number of scholars in boys' and girls' schools in 1887 instead of the number of boys and girls in schools of all classes. This error has been rectified by comparison with Tables III and V, and the total number of girls at school in 1887 exceeds the total given in the Imperial Tables for that year by 38,551; while the number of boys has been reduced by the same amount.

Proportion of Scholars to Population of School-going Age.

Province.	Population.			Scholars.			Percentage of male scholars to male population of school-going age	Percentage of female scholars to female population of school-going age	Percentage of total scholars to total population of school-going age.
	Males.	Females	Total	Males	Females	Total			
1886-87.									
Madras	15,278,232	15,590,272	30,868,504	423,805	65,137	488,942	18 5	2 8	10 6
Bombay	11,951,779	11,213,122	23,164,901	489,095	52,941	542,036	27 3	3 1	15 5
Bengal	33,917 217	34 243,381	68,160,598	1,278,810	83 292	1,362,102	25 1	1 6	13·3
N.-W. P. and Oudh	22,912,556	21,195,313	44,107,869	316,339	13,242	329,581	9·2	·4	5 0
Punjab	10,210,053	8,640,384	18,850,437	255,274	25,885	281,159	16 7	2 1	9 9
Central Provinces	5,827,122	5,721,389	11,548,511	101,310	5,691	107,001	11 6	·7	6 2
Upper Burma	...	..	...				...	...	..
Lower Burma	1,991,005	1,745,766	3,736,771	102,536	12,926	115,462	34 3	4 9	20 6
Assam	2,503,703	2,377,723	4,881,426	64,504	5,226	69,730	17 2	1·5	9·5
Coorg	100,439	77,863	178,302	3,346	524	3,870	22 2	4·5	14 4
H. A. Districts	1,380,492	1,292,181	2,672,673	42,238	1,423	43,661	20 4	·7	10 9
Total	106,072,598	102,097,394	208,169,992	3,077,257	266,287	3,343,544	19·3	1·7	10·7
1891-92.									
Madras	17,619,395	18,011,045	35,630,440	595,514	98,471	693,985	22 5	3 6	12 9
Bombay	13,841,959	12,992,346	26,834,305	561,4	73,029	634,438	27 0	3 7	15·8
Bengal	36,412 749	36,630,948	73,043,697	1,434,823	97,142	1,531,965	26·3	1·8	14·0
N.-W. P. and Oudh	24,303,601	22,601,484	46,905,085	269,757	12,813	282,570	7 4	·4	4 0
Punjab	11,255,986	9,610,861	20,866,847	239,868	20,359	260,227	14 2	1·4	8 3
Central Provinces	6,478,435	6,453,912	12,932,347	109,399	8,084	117,483	11·3	·8	6·0
Upper Burma	1,424,860	1,544,081	2,968,941	58,519	4,821	63,340	27·4	2 0	14 2
Lower Burma	2,462,296	2,196,331	4,658,627	116,483	16,205	132,688	31 5	4·9	18 9
Assam	2,798,908	2,636,335	5,435,243	78,379	5,259	83,638	18 7	1·3	10·3
Coorg	95,907	77,148	173,055	4,212	792	5,004	29 3	6 8	19 3
H. A. Districts	1,491,500	1,405,540	2,897,040	49,415	2,068	51,483	22 0	1·0	11·8
Total	118,185,596	114,160 031	232,345,627	3,517,778	339,043	3,856,821	19·84	1·97	11·06

The maps placed at the commencement of this chapter give a graphic representation of the figures in the last column and of the corresponding figures for 1887. Strictly speaking the comparison of the percentages for these two years is not quite fair, for no allowance has been made for the increase of the population in the interval between the date of the returns and the date of the last census. All the percentages are therefore too high, the error being much greater in 1887 than in 1892. If the rate of increase of the population be assumed to be constant, and the increase for five years be added to the census figures for 1881, so as to equalise the errors for the two years, the percentages for 1887 are approximately as follows:—

Madras	9·9
Bombay	14·2
Bengal	12·9
North-Western Provinces	4·7
Punjab	9·4
Central Provinces	5·7
Lower Burma	18·
Assam	9·
Coorg	14·6
Berar	10·4
TOTAL FOR INDIA	10·

The effect of these corrections upon the map for 1887 would be to place Bombay and the Central Provinces one degree lower in the scale of colour and so indicate a larger amount of progress than the maps actually show.

In the whole of India 1 child in every 9 was at school in 1892 against 1 in 10 in 1887; for boys the proportion was rather below 1 in 5 in both years, the corrected increase being from 18·1 to 19·8 per cent.; for girls the proportion rose from 1 in 60 to 1 in 50. Returning now to the uncorrected figures in the table, Lower Burma retains its place at the head of the list with regard to the education of boys, though in the year 1886-87 the percentage fell from 48·1 to 34·3 in consequence of the disturbed state of a part of the province; and this percentage was still further reduced by the exclusion from the returns of a large number of weak and inefficient schools. Coorg, Upper Burma, Bombay, and Bengal come next with from 29·2 to 26·3 per cent.; in 1887 Coorg was at the bottom of this group. In 1887 Berar came next, and then Madras, but now the order of these provinces has been reversed; in both rather more than 1 boy in 5 is at school. Assam has a rather smaller proportion; and the last three places are occupied by the Punjab, the Central Provinces, and the North-Western Provinces, in the last of which the proportion falls as low as 1 in 14. Five years ago the proportion was about 1 in 11; the Punjab also shows a small decrease.

In the education of girls Coorg has risen from the second to the first place, the proportion having risen from 1 in 23 to 1 in 15. Lower Burma comes next with about 1 in 20, and then Bombay and Madras with 1 in 28. Upper Burma, Bengal, the Punjab, and Assam follow with proportions ranging from 1 in 50 to 1 in 77, while in the last group, consisting of Berar, the Central Provinces, and the North-Western Provinces, the proportion falls from 1 in 111 to 1 in 333. The percentage has decreased in the North-Western Provinces, the Punjab and Assam, but in the Punjab the loss of pupils is confined to private institutions.

7. Comparison of Educational Statistics with the Census Tables.—The number of children under instruction is given in Table IX of the Census of 1891, and as this table includes all children educated privately and all the scholars of the schools that failed to submit returns, the total number for each province ought to be considerably larger than that given in the departmental returns.

Instead of this the departmental totals, in most provinces, are much greater than those of the census, the difference amounting to nearly half a million in Bengal. The extent of the variation is shown in the following table, which gives the percentage of boys and girls under instruction as calculated from both sets of tables :—

	Boys.			Girls.		
	Census tables.	Educational returns for 1890-91	Difference.	Census tables.	Educational returns for 1890-91.	Difference.
Bengal	16·59	25 27	+8 68	·63	1 61	+·98
Punjab	9 41	13 21	+3 80	54	1·58	+1 04
Assam	11 70	17·64	+5·94	·86	1 19	+ 33
Bombay	21 11	26·55	+5 44	1 57	3 56	+1·99
Berar	17 21	21 59	+4·38	·46	96	+·5
Central Provinces	8 36	10 70	+2 34	·42	·78	+·36
North-Western Provinces	6 54	7·56	+1·02	24	·41	+·17
Madras	22 0	21·05	—·95	2·20	3 25	+1·05
Coorg	29·14	28 2.	—·93	5·27	6·36	+1·09
Upper Burma	46·78	23·09	—23 69	1 46	1·65	+·19
Lower Burma	34·73	27 26	—7 47	4·50	4·44	—·06

Thus in Bengal and Assam the educational returns are 50 per cent. above, and in Upper Burma 50 per cent. below, those of the census tables in the case of boys, while in the case of girls the difference amounts to nearly 200 per cent. in the Punjab. The difference in the dates of the two enumerations does not account for these discrepancies; the census was taken on the 26th February 1891, and the educational returns refer to the 31st March of the same year; in the interval of five weeks the change in the number of children must have been very small, especially as the interval does not include any marked change of season, or any vacation common to a large number of schools. The chief cause of the difference appears to be the exclusion from the census tables of scholars in Koran and other rote schools, and of a large number of children in the lowest stage, not reading printed books. Rote schools were purposely excluded, and the enumerators were instructed to enter as "learning" only those who were learning to read and write. In some provinces children learn to write before they commence to read, while in some cases children commence by learning the native arithmetical tables. It was not intended that these children should be excluded from the total of learners, but it is probable that most of them have been shown as "illiterate." It is not a matter for surprise that the enumerators should have so misinterpreted the instructions when similar mistakes, on quite as large a scale, have been made by officers of the Department in collecting educational statistics. A case of this kind is referred to in paragraph 9 below. Another, but less important, cause is the inclusion under the head of "literate" of a considerable number of scholars in the higher stages of instruction and in special schools. This is admitted to have taken place in the town of Bombay, and there is very little doubt that it has also happened in Calcutta. The census tables show only 20,866 boys under instruction in Calcutta, while the returns show about 37,000. (Mr. O'Donnell in the Census Report says 29,375, but this number does not include colleges, European schools, etc.) If all the scholars in rote schools are excluded, and all the students of law, medicine, and other special subjects, as well as all the scholars not reading printed books, the total still

exceeds 30,000, and as this number includes only scholars in public institutions, it is difficult to see how it could be reduced to the number given by the census tables, except by the classification of learners as literate. It is not, however, necessary to go beyond the census tables themselves to show the probability that this mistake has occurred in Calcutta: 21,132 boys under 15 years of age are returned as literate against 17,596 returned as learning, while for the whole province the proportion of literate to learning, among boys under 15, is less than 1 to 3. The tables for different religions give further evidence of the same kind; Hindus form a much larger proportion of the total number of scholars in the higher than in the lower stages of instruction, very few Muhammadans or Christians reaching the collegiate stage; among Hindus the literate exceed the learners by 36 per cent., while for each of the other religions the learners exceed the literate. In only one of the districts of Bengal is the same excess of literate over learners found among boys under 15, and there the number of learners is rather more than is shown by the educational returns: in an adjoining district the literate are only half as numerous as the learners, and the latter are less than a third of the number on the rolls of the schools. Taking the whole province, the exclusion of children not reading printed books and of scholars in colleges and special schools would bring the departmental figures very nearly into accordance with those of the census. The case of Bengal has been dealt with at some length, because the Census Superintendent in his report states that the census tables are correct, and that the returns include a large number of children who are only nominally receiving education. It is not possible to account for all the discrepancies in this manner, but this is hardly to be expected when two neighbouring districts differ to the extent indicated.

For girls the census figures are everywhere lower than those given in the returns, except in Lower Burma; for boys the census figures exceed the departmental ones by an amount which may be considered normal in Madras and Coorg and very large in Burma, probably on account of the large number of monastic schools, very few of which are recognised by the Department; girls are not admitted to these schools.

8. Schools classified according to Standard of Instruction.—The next table gives for each province the attendance in institutions of each class in 1887 and in 1892. These statistics are given in greater detail in the tables at the commencement of the chapters dealing with the various classes of institutions, where also the necessary explanation of the figures will be given.

Schools classified according to Standard of Instruction.

Province.	Colleges.		Secondary Schools.		Primary Schools.		Special Schools.		Private Institutions.		Total.	
	Institutions.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.
1886-87.												
Madras	35	3,323	747	66,856	14,065	384,888	82	3,022	1,788	30,853	16,717	488,942
Bombay	13	1,633	388	38,064	7,520	434,377	75	2,225	2,927	65,737	10,923	542,036
Bengal	39	4,611	2,235	184,319	50,667	1,122,286	180	5,378	4,221	45,508	57,342	1,362,102
North-Western Provinces and Oudh	18	1,311	620	66,579	5,322	181,473	61	3,163	6,866	77,055	12,887	329,581
Punjab	5	509	245	44,808	1,934	89,702	19	995	16,527	145,145	18,730	281,159
Central Provinces	3	100	71	4,216	1,799	102,173	18	463	4	49	1,895	107,001
Lower Burma	1	14	71	8,541	4,959	103,601	15	447	205	2,859	5,251	115,462
Assam	...	...	111	10,574	1,915	53,801	18	529	245	4,826	2,289	69,730
Coorg	...	...	3	441	71	3,103	1	13	19	313	94	3,870
Hyderabad Assigned Districts	...	...	26	4,695	935	38,530	1	96	26	340	988	43,661
Total	114	11,501	4,517	429,093	89,187	2,513,934	470	16,331	32,828	372,685	127,116	3,343,544
1891-92.												
Madras	40	4,450	813	72,402	18,855	548,712	93	3,948	3,403	64,473	23,204	693,985
Bombay	15	1,827	410	43,420	9,031	518,284	47	3,075	2,771	67,832	12,274	634,438
Bengal	48	6,287	2,369	202,684	51 269	1,175,962	270	7,438	13,868	139,594	67,824	1,531,965
North-Western Provinces and Oudh	23	2,592	494	53,857	4,499	156,816	62	4,028	5,784	65,192	10,862	282,570
Punjab	9	763	287	50,587	2,046	99,078	12	1,294	7,054	108,590	9,408	260,227
Central Provinces	5	314	257	23,853	1,627	89,376	19	614	80	3,326	1,988	117,483
Upper Burma	...	...	13	726	3,383	52,221	5	116	2,458	10,277	5,859	63,340
Lower Burma	1	44	88	10,273	2,675	79,606	18	456	3,366	42,309	6,148	132,688
Assam	...	...	112	10,353	2,365	66,913	25	635	298	5,737	2,800	83,638
Coorg	...	...	3	500	73	4,057	1	10	27	437	104	5,004
Hyderabad Assigned Districts	..	...	26	4,639	1,286	46,582	2	118	8	144	1,322	51,483
Total	141	16,277	4,872	473,294	97,109	28,37,607	554	21,732	30,117	507,911	141,793	3,856,821

9. Scholars classified according to Stage of Instruction.—In General Table V the scholars in primary and secondary schools are divided into five stages—high, middle, upper primary, lower primary A (reading printed books), and lower primary B (not reading printed books). In Arts colleges all the students have passed beyond the high stage, and are classed as belonging to the collegiate stage. In special schools and in private institutions there is no recognised system of classification of the scholars. The students in professional colleges are usually counted as belonging to the collegiate stage, but this is incorrect, since many of them have not matriculated; the returns do not show how many students really belong to the collegiate stage, and therefore these colleges are excluded from the tables given below. Another reason for excluding them is that many of the students in Law colleges are also reading for the B.A. degree, so that they are counted twice over in the returns. The following table shows for each province the percentage of scholars in each of the six stages in 1887 and in 1892 :—

1886-87.

Province.	Percentage of Pupils in the					
	Collegiate stage.	High stage.	Middle stage.	Upper Primary stage.	Lower Primary stage (reading printed books).	Lower Primary stage (not reading printed books).
Madras	·6	1·4	5·4	6·6	67.6	18·4
Bombay	·2	2·6	4·2	28·0	650	
Bengal	·2	1·1	3·2	5 8	54·8	34·9
North-Western Provinces and Oudh.	·4	·7	5·4	20·5	67·8	5·2
Punjab	·3	1·1	7·5	18·7	68·5	3·9
Central Provinces	·1	·5	5·8	13·3	42·0	38·3
Upper Burma	...	...	...	...	...	...
Lower Burma	·0	·2	1·7	4·0	45·6	48·5
Assam	...	1·1	2 6	5·4	75·8	15·1
Coorg	...	1·4	5·8	23·5	68·6	·7
Hyderabad Assigned Districts	...	1·0	6·3	25·3	20·2	47·2
Average for India	·3	1·3	4·1	11·8	82·5	

1891-92.

Province	Percentage of Pupils in the					
	Collegiate stage.	High stage.	Middle stage.	Upper Primary stage	Lower Primary stage (reading printed books).	Lower Primary stage (not reading printed books).
Madras	·6	1·4	4·0	5·8	73·2	15·6
Bombay	·2	2·8	3·7	26·3	37·7	29·3
Bengal	·4	1·9	3·4	5·5	59·5	29·3
North-Western Provinces and Oudh.	·9	1·2	5·7	17·0	72·1	3·1
Punjab	·4	1·4	8·0	17·0	70·7	2·5
Central Provinces	·2	·6	5·9	14·4	36·5	42·4
Upper Burma	...	·0	·2	1·1	98·7	...
Lower Burma	·1	·2	2·8	7·1	89·8	...
Assam	...	1·3	2·8	4·5	76·4	15·0
Coorg	...	1·0	4·1	10·9	69·4	14·3
Hyderabad Assigned Districts	...	·9	6·6	25·5	20·3	46·7
Average for India	·4	1·8	3·9	10·9	60·2	22·8

From the table in paragraph 6 we see that in 1892 out of 10,000 children of school-going age 1,108 were under instruction; of these 146 were in private institutions and 7 in professional colleges or special schools, while the remaining 955 were distributed among the different stages as shown in the next table, which also gives the corresponding distribution for boys and girls separately:—

	Boys.	Girls.	Total.
Collegiate	7	0	4
High	32	1	17
Middle	70	4	38
Upper Primary	193	11	104
Lower Primary (A)	1,027	105	574
Lower Primary (B)	372	59	218
	1,701	180	955

It is useless to attempt to use the figures in the preceding tables to compare the state of education in different provinces, for the limits of the various stages are not even approximately the same: the lower limit of the collegiate stage is the matriculation examination of one or other of the Universities, and this approaches more nearly to a uniform standard than any of the other examinations. In the stage defined by this standard the North-Western Provinces show the largest proportion of students, probably because education has scarcely begun to filter downwards to the masses, only 1 child in 25 being under instruction. In the high stage Bombay has the largest percentage; but this is explained by the fact that this stage includes four classes, while in other provinces only two or three classes are counted as belonging to the high stage. Judging by the examination statistics in General Table VI, the proportion of scholars in the matriculation class is larger in the North-Western Provinces than in Bombay; but as there are only two classes instead of four in the high stage, the percentage of scholars in that stage is reduced to less than half that of Bombay. In the middle stage the differences are less marked, the Punjab heading the list. Many of the Bombay primary schools contain two classes above the upper primary standard, which in other provinces would be returned as middle vernacular classes; their inclusion in the upper primary stage has very much raised the percentage for that stage at the expense of the one above it. In Madras and the Central Provinces this stage contains only one class. The number of scholars in the lowest stage depends chiefly upon the extent to which indigenous methods of teaching are retained in primary schools. In the North-Western Provinces hardly any of the indigenous schools have been brought within the influence of the Department, and in the Punjab they have not been incorporated in the general system of primary schools, even when aided, so that in both provinces the number of children not reading printed books is very small. Lower Burma exhibits some strange fluctuations in this respect; in 1886 only ·3 per cent. of the scholars were shown as not reading printed books, but a year later the proportion had risen to 48·5 per cent.; it then gradually decreased to 34·1 per cent. in 1891, and in the following year all the scholars were shown as reading printed books In explanation of these changes the Director states that in 1886 the headings were misunderstood by the Deputy Inspectors, and that nearly half of the scholars were learning to write on blackened boards, the Burmese substitute for slates, without using any printed books; in 1891-92 definite standards were prescribed, and this led to the introduction of printed books into all the classes.

10. General Estimate of Progress, 1887 to 1892.—The figures given in the preceding paragraph afford some indication of the nature and extent of the progress made during the last five years. It is true that in some cases the limits of the various stages have been changed by an alteration of the standards of examination, but these changes, though sufficient to disguise the extent

of the progress in the provinces concerned, are not sufficiently uniform in direction to materially affect the proportions for the whole of India. The figures for India are given in greater detail in the following tables, which show for boys and girls separately both the number and the percentage of scholars in each stage of instruction at the end of each of the six years, 1886-87 to 1891-92:—

Male Scholars.

Stage of Instruction.	Number.						Percentage.					
	1886-87.	1887-88.	1888-89.	1889-90.	1890-91.	1891-92.	1886-87.	1887-88.	1888-89.	1889-90.	1890-91.	1891-92
Collegiate	8,759	10,313	11,234	11,187	12,130	12,940	·32	·37	·41	·40	·42	·43
High	38,453	43,346	51,613	52,985	55,886	57 462	1·42	1·57	1·86	1·89	1·93	1·90
Middle	117,066	121,152	125,836	127,931	124,612	124,886	4·32	4·40	4·54	4·56	4·30	4·14
Upper Primary	333,341	329,755	328,774	329,054	337,307	343,734	12·29	11 97	11·86	11·72	11·65	11·39
Lower Primary (A)	2,213,709	1,501,610	1,528,506	1,557,399	1,649,076	1,819,849	81·65	54·50	55·14	55·49	56 95	60·31
Lower Primary (B)		748,826	725,827	728,110	716,606	658,758		27·18	26·19	25·94	24·75	21·83
Total	2,711,328	2,755,002	2,771,790	2,806,666	2,895,617	3,017,629(a)	100·	100·	100·	100·	100·	100·

Female Scholars.

Stage of Instruction.	Number.						Percentage.					
	1886-87.	1887-88.	1888-89.	1889-90.	1890-91.	1891-92.	1886-87.	1887-88.	1888-89.	1889-90	1890-91.	1891-92.
Collegiate	5	15	16	32	35	45	·002	·006	·006	·012	·013	·014
High	433	505	610	775	824	926	·18	·20	·24	·30	·29	·30
Middle	4,512	4,943	5,036	5,475	5,916	6,105	1·88	2·00	1·97	2·09	2·11	1·99
Upper Primary	15,484	16,773	15,720	16,655	17,683	18,972	6·44	6·77	6·16	6·37	6·32	6·19
Lower Primary (A)	220,099	131,365	135,150	137,072	162,776	179,577	91·50	53·04	52·99	52·39	58·20	58·64
Lower Primary (B)		94,037	98,566	101,618	92,510	100,616		37·99	38·64	38·84	33·07	32·86
Total	240,533	247,638	255,098	261,627	279,744	306,241	100·	100·	100·	100·	100·	100

(a) Exclusive of 40 boys in the Central Provinces not classified according to stages.

The totals given in these tables do not in all cases agree with those in General Tables I and III; the managers of some schools have failed to classify the scholars, and in some instances a few scholars in special schools have been included in the classification. The differences are not, however, sufficiently large to affect the percentages.

The most conclusive evidence of progress afforded by the tables is the large decrease in the proportion of scholars, both boys and girls, in the stage where printed books are not used, and the corresponding increase in the upper division of the lower primary stage. Among boys there is a decrease in the number, as well as in the percentage, but there is a small increase in the number of girls in the lowest stage. This transfer of scholars from the lowest stage to the one above it is common to all provinces, except the Central Provinces and Coorg, in both of which the percentage of scholars not reading printed books has increased. The two highest stages show an almost continuous increase, both for boys and girls, while the proportion of scholars in the middle stage has remained almost stationary, boys showing a small decrease and girls a small increase, the absolute number having increased in both cases. The percentage of boys in the upper primary stage has continuously decreased, while that of girls has fluctuated, the total result being a small decrease. The percentage in the collegiate stage in 1887 is rather lower than that given for 1886 in the last Review, especially in the case of girls, because in the above tables professional colleges are omitted; if these were included the number of girls would be nearly doubled in 1892, and more than doubled in some of the earlier years.

As in 1886 the percentages for boys and girls are nearly equal in the upper section of the lower primary stage: in the upper stages the percentage for boys is much higher than that for girls, but in the upper primary and middle stages the difference is being gradually reduced.

11. Schools classified according to Management.—In the next table public institutions are divided into institutions under public management and institutions under private management. Under the former head are included the schools managed by the Department and those under the control of District and Municipal Boards; under the second head are included schools aided by Government or by local bodies, and unaided schools. Previously to 1889 schools under public management were classified according to the source from which they derived funds for their support, but on the recommendation of Sir Alfred Croft the headings of the tables have been changed so as to show the controlling authority instead. This change has caused the transfer to the list of departmental institutions of a number of schools in the North-Western Provinces which are managed by the Department but receive no support from provincial revenues.

Schools classified according to Management.

Provinces.	Departmental Institutions. (a)		Institutions maintained by Local and Municipal Boards.		Aided Institutions.		Unaided Institutions.		Private Institutions.		Total	
	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.
1886-87.												
Madras	146	9,031	1,424	52,346	8,212	277,924	5,147	118,788	1,788	30,853	16,717	488,942
Bombay	1,985	118,913	4,959	296,474	1,020	57,495	32	3,417	2,927	65,737	10,923	542,036
Bengal	406	29,834	83	6,362	44,965	1,118,269	7,667	162,129	4,221	45,508	57,342	1,362,102
North-Western Provinces and Oudh	61	4,405	5,504	217,225	370	27,149	86	3,747	6,866	77,055	12,887	329,581
Punjab	28	3,337	1,748	109,341	340	20,153	87	3,183	16,527	145,145	18,730	281,159
Central Provinces	349	22,937	775	52,350	649	27,843	118	3,822	4	49	1,895	107,001
Upper Burma	...	...	...	...	...	...	...	...	...	...	...	
Lower Burma	20	783	44	4,223	1,198	47,248	3,784	60,349	205	2,859	5,251	115,462
Assam	62	4,477	1,352	37,661	526	18,555	104	4,211	245	4,826	2,289	69,730
Coorg	63	3,001	6	392	6	164	...	...	19	313	94	3,870
Hyderabad Assigned Districts	598	34,560	22	2,402	244	5,181	98	1,178	26	340	988	43,661
Total	3,718	231,278	15,917	778,776	57,530	1,599,981	17,123	360,824	32,828	372,685	127,116	3,343,544
1891-92.												
Madras	371	19,756	3,101	130,479	10,359	347,520	5,970	131,757	3,403	64,473	23,204	693,985
Bombay	2,183	138,045	5,032	315,864	2,147	101,864	139	10,833	2,771	67,832	12,274	634,438
Bengal	315	24,195	202	13,089	43,455	1,130,614	9,984	224,473	13,868	139,594	67,824	1,531,965
North-Western Provinces and Oudh	134	14,057	4,461	171,259	427	28,947	56	3,115	5,784	65,192	10,862	282,570
Punjab	22	3,426	2,045	125,398	244	18,775	43	4,038	7,054	108,590	9,408	260,227
Central Provinces	373	22,454	831	60,074	620	28,665	84	2,964	80	3,326	1,988	117,483
Upper Burma	5	116	...	...	557	13,830	2,839	39,117	2,458	10,277	5,859	63,340
Lower Burma	21	1,421	21	1,997	1,138	49,971	1,602	36,990	3,366	42,309	6,148	132,688
Assam	72	4,106	1,268	33,751	972	33,392	190	6,652	298	5,737	2,800	83,638
Coorg	64	3,720	7	620	6	227	...	...	27	437	104	5,004
Hyderabad Assigned Districts	85	7,599	566	30,528	553	21,821	110	1,391	8	144	1,322	51,483
Total	3,645	238,895	17,534	883,059	60,480	1,765,626	21,017	461,330	39,117	507,911	141,793	3,856,821

(a) Inclusive of institutions "maintained by Native States" and those "maintained by other departments of Government or in other ways."

Excluding the schools in the Native States of Bombay and the Central Provinces, the number of departmental institutions has fallen from 1,797 to 1,397. In Berar over 500 schools have been transferred recently to the control of District Boards, and similar transfers have been made in Bengal, the Central Provinces, and Bombay. Madras alone shows a large increase in the number of Government schools; but this is due to the establishment of schools in backward tracts, where private enterprise could not be relied upon to supply suitable instruction for the people. The Central Provinces and Coorg now contain the largest proportion of schools under the direct control of Government, but in the former the schools are being gradually made over to Municipal Boards. The second class of institutions under public management includes 15,884 schools managed by District Boards and 1,650 schools under Municipal Boards: Madras shows the greatest increase under this head, the number of schools having more than doubled. In the North-Western Provinces there is a loss of more than a thousand schools, mostly of the primary class, which is not compensated by an increase in the other classes of schools: the reasons for this decrease will be given in the chapter on primary education.

Aided schools have increased in number from 57,530 to 60,480; more than 70 per cent. of the entire number are found in Bengal, where, however, there is a decrease of 1,510 schools, but this is more than made up for by an increase of 2,317 in the number of unaided institutions. Of the remaining aided schools more than half are found in Madras, where their number has increased by about 25 per cent. during the last five years. In Bombay and Berar the number has more than doubled. The distribution of unaided schools is similar to that of aided schools; they are most numerous in the provinces where the departmental system of education is based upon a pre-existing indigenous system, that is, in Bengal, Madras, and Burma: these provinces contain 20,395 out of the 21,017 unaided schools of India.

12. Race and Creed of Scholars.—The next table gives a summary of columns 27—31 of General Table III, showing the classification of scholars according to race or creed.

Race or Creed of Scholars.

Province	In Public Institutions						In Private Institutions.					
	Europeans and Eurasians	Native Christians	Hindus	Muhammadans.	Others.	Total	Europeans and Eurasians.	Native Christians	Hindus	Muhammadans	Others	Total.
1886-87.												
Madras	6,964	38,602	370,678	41,285	560	458,089	2	383	28,026	2,430	12	30,853
Bombay	3,586	7,583	385,778	60,972	18,380	476,299	33	621	38,988	23,339	2,756	65,737
Bengal	6,046	5,035	937,617	338,372	29,149	(a)1,316,594	..	80	16,026	28,514	888	45,508
N.-W. Provinces and Oudh	2,364	3,514	204,946	41,521	181	252,526	..	925	48,475	27,403	252	77,055
Punjab	1,479	1,229	68,094	50,215	14,997	136,014	119	15	27,042	110,670	7,299	145,145
Central Provinces	916	576	91,817	8,223	5,420	106,952	...	...	17	32	...	49
Upper Burma	...	...	...	..	...	...	..	...	...	..	...	..
Lower Burma	1,605	...	...	..	(b) 110,999	112,603	...	...	..		(b) 2,859	2,859
Assam	40	1,855	46,138	10,136	6,735	64,904	..	..	1,991	2,800	35	4,826
Coorg	19	107	872	141	2,418	3,557	...	6	123	37	147	313
Hyderabad Assigned Districts	12	80	37,034	6,161	34	43,321	.	...	150	190	...	340
Total	23,031	58,581	2,142,974	557,026	188,872	2,970,859	154	2,030	160,838	195,415	14,248	372,685
1891-92.												
Madras	7,061	50,210	503,306	67,417	1,518	629,512	...	630	46,830	16,974	39	64,473
Bombay	4,043	9,225	433,761	97,186	22,391	566,606	6	241	41,863	22,206	3,516	67,832
Bengal	6,921	10,898	991,091	355,207	28,254	1,392,371	...	70	45,109	93,640	775	139,594
N.-W. Provinces and Oudh	2,701	4,817	175,099	34,530	231	217,378	14	454	34,720	29,883	121	65,192
Punjab	2,076	1,067	89,181	58,988	325	151,637	55	971	33,946	72,505	1,113	108,590
Central Provinces	1,024	770	97,343	8,833	6,187	114,157	.	14	3,001	106	205	3,326
Upper Burma	75	394	145	250	52,199	53,063	..	...	95	1,004	9,178	10,277
Lower Burma	1,710	11,798	745	1,496	74,630	90,379	...	.	31	2,676	39,602	42,309
Assam	26	2,819	54,208	12,800	8,048	77,901	...	...	1,787	3,927	23	5,737
Coorg	21	134	4,199	174	39	4,567	.	11	411	15	...	437
Hyderabad Assigned Districts	62	83	43,862	7,275	57	51,339	...	..	.	144	...	144
Total	25,720	92,215	2,392,940	6,44,156	193,879	3,348,910	75	2,391	207,793	243,080	54,572	507,911.

(a) Inclusive of 375 pupils not classified according to race or creed.

(b) Classification imperfect; includes Native Christians, Hindus and Muhammadans.

The most noticeable feature in the table is the large increase in the number of Native Christian scholars; excluding Burma, where the figures for 1887 are incomplete; the increase amounts to 36·6 per cent., which is nearly three times the increase of the Native Christian population during the same period. For Europeans and Eurasians the increase is only 11·3 per cent., which is probably little more than the increase of the population during the five years. For Hindus the increase is 12·9 per cent. and for Muhammadans 17·9 per cent. Among "Others" the increase is about 22·3 per cent., but it is probable that some interchanges have been made between this column and that of Hindus. In any case the statistics regarding the classes returned as "Others" are worthless, for under this head are included some of the most advanced, and some of the most backward, races of India: the Parsis of Bombay and the Brahmos of Bengal belong to the former category, and the aboriginal tribes of all parts of India to the latter.

In the next table the figures for 1892 are combined with the statistics of population given in the census tables, so as to show, as far as possible, the proportion of children at school among different classes of the community. The corresponding figures for 1887 are not given, since there are no means of ascertaining the population in that year, and to use the census tables of 1881 would give percentages too high by from 5 to 10 per cent.

Race or Creed.	Percentage of scholars to children of school going age in 1891-92.		
	In Public Institutions.	In Private Institutions.	Total.
Hindus	9·7	·8	10·5
Muhammadans	8·5	3·2	11·7
Parsis (Bombay and Central Provinces)	118·6	24·5	143·1
Sikhs (Punjab)	6·7	2·7	9·4
Buddhists (Burmah)	12·3	4·5	16·8
Native Christians	48·1	1·2	49·3
Europeans and Eurasians	78·9	·2	79·1
Jews (Bombay)	64·5	22·	86·5
Brahmos (Bengal)	212·6	0	212·6

The fact that the number of Brahmo and Parsi children at school exceeds the number of children of school-going age at once shows that the conventional 15 per cent. cannot be applied to all classes. It will therefore be convenient to discuss the meaning of the term "school-going age" before drawing any conclusions from the above table.

13. Meaning of the "School-going Age."—In the last Review Sir Alfred Croft discussed the question what proportion of the entire population be regarded as of school-going age, and arrived at the conclusion that the assumed proportion of 15 per cent. was too low, and that 20 per cent. would be nearer the truth, this being approximately the proportion of the population between the ages of 5 and 12 years. More recently the question has been discussed by the Director of Public Instruction in Madras, and the Local Government has invited the particular attention of the Government of India to his remarks on the subject in the Report for 1891-92. Dr. Duncan agrees with Sir Alfred Croft that 20 per cent. is a better approximation than 15 per cent.,

but apparently considers even this number too low. He reckons that on the average a boy may be expected to spend five years in each of the four stages of instruction—primary, middle, high, and collegiate—and takes 4 and 24 years as the average limits of the school-going age: over 40 per cent. of the entire population fall within these limits. Five years may be taken to be a fair average for the primary and collegiate stages, but in the two secondary stages together the average ought to be nearer seven than ten years. In Madras the secondary course is supposed to last six years, and in other provinces it varies from four to seven years. Even for Madras the average does not appear to be above seven years, for half of the successful candidates at the matriculation examination of 1891-92 were under 17 years of age, and the percentage of passes was much higher among the candidates under 17 than among those over 17. This, however, does not materially affect the question, which really turns upon the proper meaning to be assigned to the term "school-going age," and I am inclined to think the term is altogether inapplicable to India. In all the statistics based upon the assumed proportion of 15 per cent., what is really required is a comparison of the number of children actually at school with the number of children who ought to be under instruction if a suitable system of education could be provided for all classes of the community. In England every child between certain limits of age ought to be under instruction, so that a fixed and definite meaning can be assigned to the school-going age. In India education is not compulsory, and there are no limits of age prescribed by law, so that the term loses its definite meaning. Assuming that the number of children of school-going age is synonymous with the number of children who ought to be under instruction, the arguments used by Sir Alfred Croft seem to show that 15 per cent. is a very fair proportion to take, and, if it errs at all, it is a little too high. For the great bulk of the population, including almost the whole of the rural population, the education given in a primary school is all that is necessary, and perhaps all that is desirable. The primary course lasts five years, and boys attend school between the ages of 5 and 15. "Thus the people, as a whole, would be fully educated according to their needs, even though the returns showed that only half the population, from 5 to 15 years of age, were at any given time at school." Half the number of children between those limits would be about 12¼ per cent. of the entire population, so that for the classes for whom a primary education is sufficient, this is an approximation to the number of children who ought to be at school Among the more highly educated classes of the community the number of children under instruction ought to rise to 30, or perhaps 35 per cent; but as these classes form a very small proportion of the population of India, the average for all classes would not rise above 15 per cent., and probably would not exceed 14 per cent.

It follows from this that, though 15 per cent. of the total population is a fair approximation to the total number of children in a province who ought to be at school, it ceases to be so when applied to particular sections of the community, such as Parsis or Europeans. The ratio of the number of children at school to 15 per cent. (or any other fixed percentage) of the population does, however, give a measure of the spread of education among different classes; but even here a correction must be made in the case of Europeans, on account of the large number of persons, chiefly soldiers, who come to the country for short periods, and do not add to the number of children. For them, 30 per cent. of the female population would probably give a fair approximation, and in the chapter on European education it will be shown that this is about the same as 7½ per cent. of the entire population. The exact proportion cannot be ascertained, as the census tables on the subject are not yet published.

Returning now to the table of the preceding paragraph, it appears that the Brahmos of Bengal are far ahead of other races and creeds; it is quite possible that the percentage given is incorrect, owing to some Brahmos being returned as Hindus either in the census tables or in the returns, but it is difficult to say whether it is too high or too low; it shows that about 32 per cent. of the Brahmo population of Bengal are under instruction, and this is by no means improbable, for the fact that 10 per cent. of the scholars are found in colleges is sufficient evidence that they remain under instruction much longer than other classes of the community. Among Parsis, who come next to them in the table, only 2¼ per cent. are found in colleges. If allowance is made for the small number of females among Europeans, the percentage for Europeans and Eurasians together is raised to about 120, so that they are not very far behind the Parsis; this is also shown by the proportion of scholars in colleges, which is nearly 2 per cent. The Jews of Bombay, who form about seven-eighths of the entire Jewish population of all the provinces, come next, with a percentage of 86·5, about a quarter of the scholars being found in private institutions. Native Christians come next with 49·3 per cent.; in the last Review the percentage was said to be 64·5; but perhaps this is a misprint for 34·5, which is much nearer the correct percentage. Buddhists follow with 16·8 per cent.: this figure cannot be compared with that of the last Review, which applies only to Burmese and excludes the backward races; in the returns for 1892 these races are not shown separately. Muhammadans are slightly ahead of Hindus with 11·7 against 10·5; but this is due to the inclusion of Koran schools, where nothing is taught but the repetition of Arabic texts, generally without any attempt at explanation of the meaning; in many cases both teachers and scholars are ignorant even of the alphabet. The Sikhs of the Punjab come at the bottom of the scale, with only 9·4 per cent. of the children at school, and many of these attend rote schools.

In the chapter on female education similar percentages, derived from the census tables, will be given for boys and girls separately: the departmental returns do not distinguish the sexes in the statistics of race and creed.

It would be interesting to ascertain the distribution of the scholars of each race or creed among the different stages of instruction, but the necessary information is not given in the tables. Some light is, however, thrown upon the question by the distribution of the scholars among the different classes of schools, which is shown in the following table:—

Scholars in Public Institutions.

Race or Creed.	Percentage to the total population.	Percentage to the total number of scholars in—								
		Arts Colleges.	Professional Colleges.	Secondary Schools for boys—English.	Secondary Schools for boys—Vernacular.	Primary Schools for boys.	Special Schools.	Secondary Schools for girls—English.	Secondary Schools for girls—Vernacular.	Primary Schools for girls.
Europeans and Eurasians	·09	1·2	11·3	3·6	·0	·1	2·9	58·3	·0	1·0
Native Christians	·55	3·0	3·6	4·3	·8	2·0	8·9	26·8	25·6	6·1
Hindus	71·29	86·2	74·3	75·3	78·1	71·2	58·2	8·2	66·8	71·5
Muhammadans	21·81	6·4	7·2	13·0	19·3	20·3	24·7	·1	6·2	16·2
Others	6·26	3·2	3·6	3·8	1·8	6·4	5·3	6·6	1·4	5·2

Europeans and Eurasians form a very small fraction of the total number of pupils in primary schools for boys, but a much larger proportion in secondary schools, the number again decreasing in Arts colleges, a large majority of the students of this class electing to enter colleges of medicine or engineering. The proportion of Native Christians is highest in secondary English and special schools, but for all classes of schools the percentage of scholars is higher than the percentage of the total population. The proportion of Hindus is lowest in primary schools and highest in Arts colleges; in Law colleges the proportion is the same as in Arts colleges, but in Medical colleges it falls below 50 per cent. Muhammadans supply their proper share of scholars to primary schools for boys, but the proportion rapidly decreases in the institutions of higher grade. In secondary English schools for girls nearly all the scholars are Christians; but in vernacular schools, both secondary and primary, Hindus form the majority, though Muhammadans form a respectable minority in primary schools.

14. Languages learnt by Scholars.—The statistics given under this head in General Table III, or at least those relating to vernacular languages, are not very trustworthy on account of variations in the mode of filling up the returns; in some cases scholars who learn two vernaculars are entered twice, and the number of scholars shown as reading a vernacular exceeds the total number of scholars: the same may have happened with students reading two classical languages, such as Arabic and Persian, but probably not to a sufficient extent to vitiate the results. The figures, such as they are, are shown in the following table:—

Languages learnt by Scholars, 1891-92.

Province.	In Public Institutions.						In Private Institutions.		
	English.	Per cent.	Classical language.	Per cent.	Vernacular.	Per cent.	English.	Classical language.	Vernacular.
Madras	100,202	15·9	12,161	1·9	619,185	98·3	148	16,786	50,750
Bombay	45,496	8·0	19,093	3·3	538,791	95·0	2,299	3,902	61,827
Bengal	137,136	9·8	113,426	8·1	1,335,299	95·9	422	107,585	33,849
North-Western Provinces and Oudh.	31,408	14·4	19,934	9·1	198,282	91·2	2,059	38,498	25,301
Punjab	22,502	14·8	41,881	27·6	148,592	97·9	143	59,668	47,463
Central Provinces	8,153	7·1	1,380	1·2	111,920	98·0	...	...	3,326
Upper Burma	897	1·6	34,142	64·3	53,031	99·9	...	7,411	10,277
Lower Burma	11,960	13·2	29,770	32·9	87,100	96·3	5	19 908	35,736
Assam	5,898	7·5	3,673	4·7	75,748	97·2	37	5,295	420
Coorg	638	13·9	6	·1	4,545	99·5	...	...	437
Hyderabad Assigned Districts.	2,599	5·	667	1·2	50,967	99·2	...	144	...
Total	366,889	10·9	276,133	8·2	3,223,460	96·2	5,113	259,197	269,386

The percentages in the table are calculated upon the total number of scholars; but to show the extent to which English is studied in different provinces, it would be more satisfactory to calculate the percentage upon the total number of children of school-going age. Adopting this method of calculation, and taking public and private institutions together, Coorg heads the list with 1 child out of 41 learning English; Madras and Lower Burma are not far behind, with 1 in 53 and 1 in 58 respectively; the next group consists of Bengal and Bombay, with 1 in 79 and 1 in 85; Assam, the Punjab, and Berar come next, with from 1 in 137 to 1 in 167; in the North-Western Provinces and the Central Provinces the proportions are 1 in 210 and 1 in 238, while in Upper Burma it is 1 in 496. In the three provinces at the head of the list English is taught in

many primary schools, while in other provinces this is very rarely the case. The percentages in the above table place the Punjab and the North-Western Provinces much higher in the list, because the number of scholars in public institutions is very small in comparison with the number of children of school-going age.

The percentage of scholars learning a classical language is much higher in Burma than in any other province, because Pali is almost universally taught in indigenous schools: the great difference between Upper and Lower Burma, the decrease in the percentage for Lower Burma from 87·4 in 1886 to 32·9 in 1892, and the great difference between the proportions in public and private institutions, all show that the departmental system tends to exclude Pali from the course of study, in spite of the rule that in aided indigenous schools Pali must be taken up before any other optional subject. The Punjab is not far behind Lower Burma, because a large number of the scholars learn Persian, even in primary schools. Madras comes very low down in the list, probably because a classical language is not compulsory even for students in Arts colleges; no other Indian University allows candidates for the B. A. degree to take up a vernacular language.

15. General Statistics of Expenditure.—The next table gives a summary of the statistics in General Table IV regarding the expenditure from public and private sources, both direct and indirect, on institutions of all classes:—

Expenditure on Education.

Head of Charges.	1886-87.						1891-92.					
	Provincial Revenues.	Local Funds.	Municipal Funds.	Fees.	Other sources.	Total.	Provincial Revenues.	Local Funds.	Municipal Funds.	Fees.	Other sources.	Total.
	R	R	R	R	R	R	R	R	R	R	R	R
Collegiate	13,43,190	6,759	14,519	4,73,268	4,10,807	22,48,543	15,37,677	10,834	28,263	7,96,572	4,99,487	28,72,833
Secondary	17,33,576	5,44,012	5,42,665	31,89,378	20,85,664	80,95,295	16,61,508	8,16,574	5,34,480	45,24,194	23,58,935	98,95,691
Primary	16,00,239	21,43,321	4,64,303	23,86,832	15,29,786	81,24,481	13,43,343	29,84,834	6,01,374	27,94,145	18,90,588	96,14,284
Special	7,65,522	1,61,093	29,747	90,279	3,16,356	13,62,997	10,02,577	1,98,805	35,099	1,22,072	3,51,788	17,10,341
Universities	44,860	...	4,618	3,19,965	—468	3,68,975	32,662	1,512	...	3,98,959	40,009	4,73,142
Direction and Inspection	15,46,556	3,86,409	10,249	9,185	38,634	19,91,033	15,42,525	6,19,893	25,223	13,209	48,928	22,49,778
Scholarships	3,64,466	83,883	55,060	2,897	1,22,163	6,28,469	4,08,605	1,31,546	30,916	5,999	1,50,002	7,27,068
Buildings and Furniture	9,08,130	3,17,725	71,412	43,971	5,93,461	18,44,699	10,82,697	4,36,675	1,01,096	38,226	5,23,645	21,82,339
Miscellaneous	2,54,710	71,377	13,411	14,183	2,24,241	5,77,922	2,01,955	1,94,135	53,376	1,61,374	1,83,316	7,94,156
Total	85,61,249	37,14,579	12,05,984	65,29,958	52,30,644	2,52,42,414	88,13,549	53,94,808	14,09,827	88,54,750	60,46,698	3,05,19,632

NOTE.—The expenditure from "other sources" includes grants from Imperial Revenues in the Punjab, which amounted to R1,26,024 in 1886-87 and to R1,32,405 in 1891-92.

Hence it appears that in five years the total expenditure from all sources on education in India has increased by R52,77,218, or 20·9 per cent. The expenditure from public sources, including Municipal funds, has increased by R21,36,372, or 15·8 per cent., while the expenditure from private sources has increased by R31,40,846, or 26·7 per cent. The increase in the expenditure from Provincial revenues appears to be only 2½ lakhs, but to this must be added the funds transferred to District Boards in Bengal in 1887-88 to meet the various educational charges transferred to them under the Local Self-Government Act; the exact amount so transferred cannot be ascertained, but from the increase in the District Board expenditure in 1887-88 it appears to be rather more than 9 lakhs of rupees.

In some other Provinces, also, grants made to Local Boards are not shown in the returns as expenditure from Provincial revenues, so that it is impossible to correctly distribute the expenditure from public sources. The Local and District Board expenditure shows an increase of 16¾ lakhs, or 45·2 per cent., and the expenditure from Municipal funds an increase of 2 lakhs, or 16·9 per cent.

The most satisfactory feature of the table is the large increase, amounting to 23¼ lakhs, or 35·6 per cent., in the expenditure from fees; the rate of increase is highest in colleges, but in all classes of institutions it is higher than the rate of increase of the number of scholars; this shows that the people are gradually learning to appreciate the value of education, and to rely more upon their own resources, and less on the State and the generosity of others. It must be remembered that the figures given under this head do not represent the whole amount paid as fees by the scholars; in many schools the income is more than sufficient to cover the total expenditure, and as the returns require only the actual expenditure to be shown, the surplus of profit is deducted from the expenditure from subscriptions, endowments, etc., and if the receipts from these sources are insufficient, from the expenditure from fees also; in some public institutions the surplus is shown as a negative expenditure from public funds, and this explains the minus sign prefixed to the Government expenditure on Law colleges in General Table IV: in institutions under private management the income from public sources is always shown in full, and the surplus, if there is one, must be deducted from the fees or subscriptions. The expenditure from other private sources has increased by rather more than 8 lakhs, or 15·6 per cent. The total direct expenditure from these sources, including expenditure of buildings, furniture, etc., amounted to 56¼ lakhs in 1891-92, which was thus distributed:—subscriptions 14¾ lakhs, endowments, etc., 33½ lakhs, revenues of Native States, including expenditure from local funds, 8 lakhs.

But for the transfer of educational charges to Local Boards in Bengal the expenditure from Provincial revenues would have shown an increase under all heads of charge except the Universities. Only two of the Universities receive grants from Government; in Bombay the annual grant was reduced from R20,000 to R15,000 in 1887-88, and the grant to the Punjab University has also fallen from R24,860 to R17,662. The Government expenditure on collegiate education has increased by about 2 lakhs, but only about one-sixth of this amount has been added to the expenditure on English Arts colleges; Engineering colleges have taken R83,000, and Medical colleges about half that amount, while the cost of the Madras College of Agriculture, R25,000, has been transferred from the head of special schools. On secondary education there is an apparent decrease of three quarters of a lakh, but a real increase of nearly a lakh and a half; on primary education the real increase is about the same, though the table shows a decrease of 2½ lakhs. On special instruction the increase amounts to R2,37,000, the chief items of which are—training schools R1,00,000, medical schools R83,000, industrial schools R31,000, schools of art R29,000. The cost

of direction has increased by R32,000, while that of inspection has decreased by R36,000; this decrease is more than compensated by the increased expenditure of Local Boards. The expenditure on scholarships has increased by R44,000, more than half of which has been spent on scholarships in professional colleges and schools for special instruction, not including training schools, the scholarships in which are counted as forming part of the direct expenditure on those institutions. The expenditure on buildings and furniture varies very much from year to year; in 1886-87 it was rather over 9 lakhs, but fell to 5¼ lakhs in the following year, and rose to 10¾ lakhs in 1891-92. The miscellaneous charges also fluctuate considerably; they include, among other things, examination expenses, prizes and rewards, grants to schools abolished before the end of the year, or returned as unaided, and grants to private institutions. The last two items are really direct expenditure, but there is no place for them under that head in General Table IV.

More than half the entire expenditure from local funds takes the form of direct expenditure on primary schools, about 19 lakhs being spent on schools managed by the boards, 9 lakhs on aided schools, and the remainder on schools managed by the Department or by Municipalities. A large part of the indirect expenditure on inspection, scholarships, buildings, etc., and almost the whole of the expenditure on training schools, is really expenditure on primary education, and the total amount so spent probably exceeds 40 lakhs, or three-fourths of the entire local fund expenditure. The expenditure has increased under every head, but as this is mainly due to transfers from Provincial revenues it is unnecessary to examine each item; full details will be given in subsequent chapters.

The Municipal expenditure on secondary schools has slightly decreased, while that on primary schools has increased by R1,37,000, or about 30 per cent. In both classes of schools nearly two-thirds of the expenditure is incurred in schools managed by the Municipal Boards, and nearly the whole of the remainder in aided schools, the grants to institutions managed by other public bodies being very small. With the exception of building grants, which average nearly a lakh a year, all the indirect charges of Municipalities are small; except in Madras and Burma there is practically no expenditure on inspection, these two provinces paying R22,000 out of R25,000. The expenditure on scholarships has been reduced by nearly one-half, the greatest decrease being in Burma.

The large increase in the expenditure from fees has already been noticed; in colleges it amounts to 68 per cent., in secondary schools to 42 per cent., in primary schools to 17 per cent., and in special schools to 34 per cent. The increase is much smaller in boys' schools than in girls' schools; in the latter it amounts to 2½ lakhs, or 66 per cent. University examination fees have increased by R79,000, Bombay and Allahabad contributing about R30,000 each.

The expenditure from other sources has increased under every head except miscellaneous charges, the greatest increase, R3,60,000, being on primary schools. The various missionary societies supply a large proportion of the money shown under the heads of subscriptions and endowments In some cases expenditure from Imperial revenues is included under this head.

16. Provincial Expenditure 1886-87 and 1891-92.—In the next table the total expenditure of each province is distributed under the same heads as in the preceding paragraph :—

Province.	1886-87.						1891-92.					
	Provincial Revenues.	Local Funds.	Municipal Funds.	Fees.	Other sources.	Total.	Provincial Revenues.	Local Funds.	Municipal Funds.	Fees.	Other sources.	Total.
	R	R	R	R	R	R	R	R	R	R	R	R
Madras	13,48,923	5,55,762	1,63,560	14,98,336	9,95,969	45,62,550	17,44,034	8,21,459	2,16,766	18,22,728	12,70,720	58,75,707
Bombay	17,88,891	7,05,378	2,13,825	9,51,376	13,36,500	49,95,970	19,65,632	8,67,695	3,63,759	13,36,002	17,47,616	62,80,704
Bengal	31,23,553	16,887	78,279	31,91,007	14,77,657	78,87,383	24,95,961	10,51,749	82,413	40,38,119	16,84,448	93,52,690
North-Western Provinces and Oudh.	5,36,902	13,57,832	75,567	3,30,010	5,67,994	28,68,305	5,48,037	14,44,421	1,01,309	7,21,603	5,38,006	33,53,376
Punjab	7,47,746	4,89,269	3,06,270	2,48,951	4,64,927	22,57,163	8,72,759	6,02,207	3,40,686	4,48,694	4,06,153	26,70,499
Central Provinces	3,54,928	1,83,869	63,665	58,007	1,58,759	8,19,228	3,85,739	1,74,868	72,743	95,969	1,34,581	8,63,900
Upper Burma	...	...	...	...	...	...	78,190	...	1,020	11,622	17,391	1,08,223
Lower Burma	2,55,636	1,38,583	2,90,767	96,712	1,55,886	9,37,584	3,02,792	1,37,448	2,13,909	1,69,352	1,64,066	9,87,567
Assam	1,42,146	1,55,187	4,702	92,455	62,690	4,57,180	1,67,694	1,61,311	4,673	1,11,306	72,737	5,17,921
Coorg	20,230	4,652	1,761	6,631	3,203	36,477	19,061	6,564	2,241	8,456	2,781	39,103
Hyderabad Assigned Districts	2,42,294	1,07,160	7,588	56,473	7,059	4,20,574	2,33,650	1,27,086	10,308	90,699	8,199	4,69,942
Total	85,61,249	37,14,579	12,05,984	65,29,958	52,30,644	2,52,42,414	88,13,549	53,94,808	14,09,827	88,54,750	60,46,698	30,519,632

In Madras the total expenditure has increased by rather more than 13 lakhs; the expenditure from Provincial revenues has increased by 4 lakhs, of which 1 lakh has been spent on colleges, 1 lakh on institutions for special instruction, chiefly training schools and medical schools, R77,000 on primary, and R58,000 on secondary schools. The expenditure from local and municipal funds has increased by more than 3 lakhs, most of this being spent, directly or indirectly, on primary education. The expenditure from private sources has increased by 6 lakhs, 3¼ lakhs from fees, and 2¾ lakhs from other sources.

In Bombay the total cost of education has increased by nearly 13 lakhs, to which Provincial revenues have contributed 1¾ lakhs, half of this being spent on primary education, and the remainder on colleges and special schools; there is a slight decrease in the Government expenditure on secondary schools. The expenditure of local bodies has increased by 3 lakhs, of which special schools have received R53,000, and primary schools nearly the whole of the remainder. The expenditure from private sources has risen by about 4 lakhs under each of the two heads.

In Bengal it is necessary to take Provincial revenues and local funds together, in consequence of the transfers already alluded to; from all public funds the expenditure has increased by about 4 lakhs, but more than half of the increase is in the indirect charges, chiefly buildings and inspection; under the latter head there is an increase of R84,000. The expenditure on Arts colleges has slightly decreased, but in professional colleges there is an increase of half a lakh; in secondary schools the increase amounts to R50,000, in primary schools to R49,000, and in special schools to R37,000. From private sources there is an increase of 10½ lakhs, 8½ lakhs from fees and 2 lakhs from other sources.

In the North-Western Provinces there are no large variations in the direct expenditure from public sources, but in secondary schools, primary schools, and colleges the fees have increased by 100, 150, and 200 per cent., respectively, the total increase under this head amounting to nearly 4 lakhs; the expenditure from other private sources has decreased by R30,000.

In the Punjab also the fees have doubled in colleges and secondary schools, and have increased in other schools, the total increase being 2 lakhs. The total expenditure from public sources has risen by 2¾ lakhs, but as in Bengal there have been some transfers of charges from one head to another. From all public sources colleges received R22,000 more in 1891-92 than in 1886-87, secondary schools R27,000, primary schools R39,000, and special schools R27,000, while the cost of inspection increased by R33,000. Under the head of miscellaneous expenditure there is an increase of a lakh, of which nearly R40,000 should be added to primary education, since it represents the grants to indigenous schools, which in other provinces are classed as primary, when in receipt of aid from the Department. Almost the whole of the miscellaneous expenditure from other sources in 1891-92 is expenditure from Imperial revenues on the boarding charges of the asylums at Murree and Sanawar.

In the Central Provinces the expenditure from provincial revenues has increased by R31,000, while an increase of R9,000 in the Municipal expenditure is balanced by an equal decrease in the expenditure from local funds; fees have increased by R38,000, but there is a decrease of R24,000 in the expenditure from other private sources. A change in the classification of middle vernacular schools makes it impossible to determine the increase or decrease in the expenditure on primary and secondary schools.

In Lower Burma there is an increase of nearly half a lakh in the expenditure from Provincial revenues, but the Municipal expenditure has decreased by three quarters of a lakh, and the local fund expenditure has also decreased slightly; fees have increased by R73,000, and the total cost of education has

risen by half a lakh. In secondary schools the total cost has risen, but the increased income from private sources has reduced the cost to public funds. The transfer of a large number of primary schools to the list of private institutions has reduced the expenditure on schools of this class from both public and private sources. In Upper Burma the educational system is not yet fully organised, and therefore the cost of inspection is proportionately larger than in any other province of India.

In Assam the expenditure from Provincial revenues has increased by R25,000, half of this amount being the pay of Sub-Inspectors transferred from the District Boards to Government in 1888-89; the money thus saved by the Boards has been spent on primary education. The other variations are unimportant, except a rise of 18 per cent. in the expenditure from fees.

In Berar a smaller demand for building grants has converted an increase of R12,000 in the Government expenditure into a decrease of R9,000; the local fund expenditure has increased by R20,000, and that of Municipal Boards by R3,000. The cost of secondary schools to public funds has diminished by R5,000 in consequence of a large increase in the fees, while an addition of R21,000 has been made to the expenditure on primary schools.

In Bengal and Lower Burma about 45 per cent. of the total direct expenditure from public funds is spent on schools under public management; in Madras and Assam the proportion is rather over 60 per cent.; in the North-Western Provinces, the Central Provinces, Bombay and the Punjab it is about 80 per cent., and it rises above 90 per cent. in Coorg and Berar. In Upper Burma it is as yet very small, 14·7 per cent., the only schools under public management being five surveying schools. For the whole of India the proportion is 68·7 per cent., against 68·2 per cent. in 1886-87. The figures from which these percentages are derived are shown in the following table, which does not include expenditure on schools in Native States, or contributions from Imperial revenues:—

Direct Expenditure from public sources.

Province.	1886-87.			1891-92.		
	In schools under public management.	In aided schools.	Total.	In schools under public management.	In aided schools.	Total.
Madras	8,16,064	6,41,013	14,57,077	12,42,820	7,54,743	19,97,563
Bombay	17,65,484	3,41,259	21,06,743	21,59,357	4,40,843	26,00,200
Bengal	9,39,142	11,60,340	20,99,482	10,22,897	12,46,144	22,69,041
North-Western Provinces and Oudh.	11,46,185	2,80,246	14,26,431	11,49,915	3,18,385	14,68,300
Punjab	7,58,015	1,62,616	9,20,631	8,61,166	1,74,451	10,35,617
Central Provinces	3,34,848	78,274	4,13,122	3,48,002	75,616	4,23,618
Upper Burma	...	...	...	5,909	34,136	40,045
Lower Burma	2,15,517	2,44,135	4,59,652	1,90,484	2,24,334	4,14,818
Assam	1,48,523	47,769	1,96,292	1,36,286	7,768	2,14,054
Coorg	19,104	2,371	21,475	17,562	1,780	19,342
Hyderabad Assigned Districts.	2,37,782	10,259	2,48,041	2,45,467	19,078	2,64,545
	63,80,664	29,68,282	93,48,946	73,79,865	33,67,278	1,07,47,143

The statistics of expenditure in each province may now be combined with the statistics of population. This is done in the following table, which shows the average expenditure from public and private sources per head of the population for the year 1891-92 :—

Province.	Public Funds.	Private Funds.	Total.
	a. p.	a. p.	a. p.
Bombay	1 11	1 10	3 9
Coorg	2 7	1 0	3 7
Lower Burma	2 3	1 2	3 5
Madras	1 3	1 5	2 8
Berar	2 0½	0 6½	2 7
Punjab	1 4¾	0 8	2 0¾
Bengal	0 9½	1 3	2 0½
Assam	0 11½	0 6½	1 6
North-Western Provinces	0 8½	0 5	1 1½
Central Provinces	0 9	0 3	1 0
Upper Burma	0 5¼	0 2	0 7¼
INDIA	1 1	1 0	2 1

In 1888 the total cost of the elementary schools under inspection in England and Wales amounted to five shillings per head of the population, or about R4, and of those in Scotland to about R4-4, excluding the cost of inspection; the amount paid by the State in grants was about R1-12 in England, and R1-13 in Scotland. In comparing these figures with those of the table it must be remembered that the latter include the cost of higher education and professional schools, which are not included in the figures for the United Kingdom.

17. Proportionate Expenditure from Public and Private Funds.—The extent to which schools depend upon public funds for their support depends in great measure upon the nature of the instruction given, but the following table shows that even in schools of the same class the percentage of public expenditure to total expenditure varies very much in different provinces.

Proportionate Expenditure on different classes of Education from Public and from Private Funds.

Province.	1886-87. Collegiate Education. From Public Funds.	1886-87. Collegiate Education. From Private Funds.	1886-87. Secondary Education. From Public Funds.	1886-87. Secondary Education. From Private Funds	1886-87. Primary Education. From Public Funds.	1886-87. Primary Education. From Private Funds.	1886-87. Special Education. From Public Funds.	1886-87. Special Education. From Private Funds.	1886-87. Indirect Expenditure on Education. From Public Funds.	1886-87. Indirect Expenditure on Education. From Private Funds.	1886-87. Total. From Public Funds.	1886-87. Total. From Private Funds.	1891-92. Collegiate Education. From Public Funds.	1891-92. Collegiate Education. From Private Funds.	1891-92. Secondary Education. From Public Funds.	1891-92. Secondary Education. From Private Funds.	1891-92. Primary Education. From Public Funds.	1891-92. Primary Education. From Private Funds.	1891-92. Special Education. From Public Funds.	1891-92. Special Education. From Private Funds.	1891-92. Indirect Expenditure on Education. From Public Funds.	1891-92. Indirect Expenditure on Education. From Private Funds.	1891-92. Total. From Public Funds.	1891-92. Total. From Private Funds.
Madras	44·9	55·1	26·0	74·0	42·7	57·3	73·0	27·0	75·0	25·0	45·3	54·7	48·7	51·3	27·2	72·8	47·6	52·4	73·2	26·8	65·2	34·8	47·5	52·5
Bombay	51·4	48·6	33·2	66·8	61·7	38·3	64·4	35·6	60·3	39·7	54·2	45·8	51·4	48·6	24·8	75·2	59·4	40·6	69·3	30·7	59·2	40·8	50·9	49·1
Bengal	67·2	32·8	24·1	75·9	25·3	74·7	62·8	37·2	89·7	10·3	40·8	59·2	54·9	45·1	21·2	78·8	24·9	75·1	64·8	35·2	88·0	12·0	38·8	61·2
North-Western Provinces and Oudh	73·0	27·0	48·8	51·2	86·0	14·0	85·4	14·6	77·9	22·1	68·7	31·3	62·4	37·6	42·9	57·1	81·6	18·4	78·2	21·8	72·0	28·0	62·4	37·6
Punjab	68·7	31·3	58·7	41·3	73·9	26·1	72·3	27·7	72·5	27·5	68·4	31·6	66·4	33·6	47·1	52·9	81·2	18·8	88·2	11·8	78·5	21·5	68·0	32·0
Central Provinces	55·1	44·9	65·9	34·1	76·8	23·2	100·0	...	72·3	27·7	73·5	26·5	44·4	55·6	66·7	33·3	66·6	33·4	99·99	·01	91·2	8·8	73·3	26·7
Burma, Upper	...	...	...	...	...	...	...	...	...	...	...	...	...	...	14·4	85·6	86·1	13·9	93·2	6·8	95·1	4·9	73·2	26·8
Burma, Lower	98·6	1·4	55·4	44·6	87·3	12·7	86·0	14·0	78·2	21·8	73·1	26·9	94·2	5·8	40·0	60·0	90·1	9·9	70·5	29·5	84·7	15·3	66·2	33·8
Assam	...	...	39·0	61·0	70·1	29·9	74·9	25·1	93·1	6·9	66·1	33·9	...	...	38·9	61·1	69·4	30·6	59·8	40·2	89·2	10·8	64·4	35·6
Coorg	...	...	67·7	32·3	79·8	20·2	100·0	...	67·4	32·6	73·0	27·0	...	...	53·8	46·2	76·3	23·7	100·0	...	83·8	16·2	71·3	28·7
Hyderabad Assigned Districts	...	...	84·4	15·6	82·4	17·6	100·0	...	88·3	11·7	84·9	15·1	...	...	75·6	24·4	74·2	25·8	100·0	...	89·7	10·3	79·0	21·0
Total	60·7	39·3	34·8	65·2	51·8	48·2	70·2	29·8	76·4	23·6	53·4	46·6	54·9	45·1	30·4	69·6	51·3	48·7	72·3	27·7	75·7	24·3	51·2	48·8

In the whole of India the contributions from private sources have increased from 46·6 to 48·8 per cent., and this increase is common to all the provinces except Madras, where there is a decrease of 2·2 per cent. In Lower Burma, the North-Western Provinces and Berar the increase amounts to from 6 to 7 per cent., and is due chiefly to a large increase in the fee payments, but in Burma also to the exclusion of a large number of weak primary schools that earned very small grants; in the Punjab the increase is only ·4 per cent., in spite of a large increase in the fee collections.

Under collegiate education the increase amounts to 5·8 per cent., and all provinces except Madras and Bombay share in this increase; in the latter there is no change in the percentage, but in the former it has fallen from 55·1 to 51·3, probably on account of the formation of M. A. classes, which has involved a considerable increase of expenditure, without a corresponding increase in the fees. The Central Provinces now head the list, owing to the absence of any professional colleges, except Law classes. For the whole of India the average is 54 per cent. in Arts colleges, 103 in Law colleges, 16 in Medical colleges, and 7 in Engineering colleges. Madras, Bombay and Bengal are not very far behind the Central Provinces, while Burma is at the bottom of the scale; this is due to the small number of students in the Rangoon College, for the fee paid by each student is about equal to the average for India.

In secondary schools the private contributions have risen from 65·2 to 69·6 per cent., and only two provinces, Madras and the Central Provinces, show a decrease; in the latter it is probably due to the inclusion under this head of middle vernacular schools, which were formerly classed as primary. Upper Burma shows the highest percentage, 85·6, and then follow Bengal, Bombay and Madras; in Berar less than a fourth of the cost of secondary schools is met from private sources, but even this shows great improvement, for five years ago the proportion was less than a sixth.

Under primary education the increase is very small, ·5 per cent., and three provinces show a decrease,—Madras, the Punjab, and Burma. Bengal, with 75·1 per cent., is far ahead of the rest of India, in consequence of the large number of unaided schools, and the very small grants given to aided schools, the average grant to each of the 41,785 aided schools in 1891-92 being only R17, against an average of R55 for the rest of India. Madras, with a somewhat similar primary system, comes next with 52·4 per cent., while in Lower Burma the proportion falls below 10 per cent.

So many different classes of schools are grouped together under the head of special education that it is of very little use to consider them as a whole, while the details for particular classes will be given in subsequent chapters. The same remark applies to the charges grouped together under the head of indirect expenditure; the most important items are the expenditure on Universities, on direction and inspection, and on scholarships; the first will be dealt with in Chapter IV, the second in Chapter III, while the third, which belongs to all grades of education, will be considered in the next paragraph.

18. Expenditure on Scholarships.—The next table shows for each province the total expenditure on scholarships classified according to the grade of institution in which they are held, and also the expenditure from public and private funds:—

PROVINCE.	1886-87.								1891-92.							
	Scholarships held in					Total expenditure.		Percentage of total expenditure on education.	Scholarships held in					Total expenditure.		Percentage of total expenditure on education.
	Arts Colleges.	Professional Colleges.	Secondary Schools.	Primary Schools.	Special Schools other than Training Schools.	From public sources.	From private sources.		Arts Colleges.	Professional Colleges.	Secondary Schools.	Primary Schools.	Special Schools other than Training Schools.	From public sources.	From private sources.	
Madras	16,188	477	1,831	1,373	9,948	20,332	9,485	·65	30,172	6,223	5,473	654	29,683	49,662	22,543	1·23
Bombay	18,756	12,764	24,958	6,275	6,727	35,237	34,243	1·39	21,248	10,618	34,138	13,045	19,384	42,244	56,189	1·6
Bengal	97,057	24,574	73,736	9,921	2,336	1,83,495	24,149	2·63	86,602	28,970	80,953	14,549	3,406	1,91,121	23,359	2·29
North-Western Provinces and Oudh.	23,339	2,288	51,713	7,354	15,020	65,732	33,982	3·47	31,538	...	47,624	3,929	11,500	59,545	35,046	2·8
Punjab	24,362	7,160	54,753	2,273	20,021	89,477	19,092	4·80	20,796	11,350	68,945	13,859	24,130	1,24,427	(a) 14,653	5·21
Central Provinces	8,791	...	10,812	5,341	...	23,196	1,748	3·04	3,568	1,638	19,338	3,838	1,798	27,934	2,246	3·49
Upper Burma	...	...	...	...	...	...	...	...	...	...	...	...	5,210	5,210	...	4·82
Lower Burma	3,351	3,015	17,797	14,363	3,828	42,354	...	4·51	4,432	540	10,028	1,396	4,514	20,910	...	2·12
Assam	14,793	1,426	15,932	1,898	...	33,210	839	7·44	16,104	2,904	19,785	1,648	...	39,460	981	7·81
Coorg	2,100	365	112	...	...	1,055	1,522	7·06	1,675	545	294	...	...	1,530	984	6·42
Hyderabad Assigned Districts	1,437	...	7,848	...	36	9,321	...	2·21	1,475	240	7,309	...	...	9,024	...	1·9
TOTAL	2,10,174	52,069	2,59,512	48,798	57,916	5,03,409	1,25,060	2·48	2,17,610	63,028	2,93,887	52,918	99,625	5,71,067	1,56,001	2·4

(a) Includes R168 from Imperial Revenues.

The table discloses very wide variations from one province to another, not only in the ratio of the expenditure on scholarships to the total expenditure, but also in the distribution of the scholarships among the different classes of institutions. For the whole of India the expenditure on scholarships is 2·4 per cent. of the total educational expenditure, but in Assam the proportion is more than three times as great, and in Coorg it is nearly as large. In these provinces Arts colleges and institutions for special instruction are wanting and a liberal provision of scholarships has been made to enable boys to complete their education in the colleges and schools of neighbouring provinces. In Berar the circumstances are the same, but the expenditure is less than the average, and only one-sixth of the amount is spent on scholarships tenable in the colleges of Bombay, and in 1892 only one scholarship was held in a professional college the Grant Medical College. In the Punjab the proportion is nearly as high as in Coorg, and is rapidly increasing, for the number of candidates qualifying for scholarships is less than, but gradually approaching, the number of scholarships sanctioned by the Local Government. In Madras the expenditure on scholarships falls to ·1¼ per cent. of the total, Bombay being next to it with 1·6 per cent.

Taking the whole of India, 40 per cent. of the expenditure on scholarships is incurred on those held in secondary schools, that is, on the scholarships awarded on the results of the primary and middle examinations. Excluding Madras and Coorg, the proportion varies from 35 per cent. in Bombay to 64 per cent. in the Central Provinces; in Coorg it falls to 11 per cent., and the whole of the cost is met from private funds, all the Government scholarships being tenable in colleges. In Madras the proportion is still lower, 8 per cent. the only scholarships of this grade given by Government are intended only for girls, and these are of recent creation; in place of creating special scholarships for schools of general education the Government offers grants-in-aid to supplement scholarships given from other sources, but the demand for such grants is small, the total provincial expenditure under this head in 1891-92 amounting to only R785; the same system applies also to college scholarships, but there are also some Government scholarships; those given on the result of the Matriculation Examination are restricted to female students and students belonging to certain backward classes, and those awarded at the First Arts Examination are open for general competition only when there are not enough candidates belonging to these classes. On the other hand, the Madras expenditure on scholarships in schools and colleges for special instruction is higher than that of any other province, the Punjab being very close to it with R35,480 against R35,906. In Upper Burma the whole of the scholarships are held in Survey schools; a scheme of scholarships for other schools has been sanctioned, but none had been awarded before the end of 1891-92. Bombay, the Central Provinces and the Punjab spend the largest proportion of the total on scholarships in primary schools.

19. Average Cost of the Education of each Pupil.—The next table gives a summary of the information given in General Table II regarding the cost of educating a pupil in institutions of different classes :—

Average Cost of educating each Pupil.

Class of institutions.	1886-87.				1891-92.			
	Provincial Revenues.	Local and Municipal Funds.	Private sources.	Total.	Provincial Revenues.	Local and Municipal Funds.	Private sources.	Total.
Colleges . Arts . .	102·8	2·5	93·3	198·6	71·2	2·5	88·3	162·0
Colleges . Professional .	185·4	...	41·4	226·8	196·8	2·2	56·3	255·3
Secondary Schools . .	4·1	2·5	12·5	19·1	3·6	2·9	15·1	21·6
Primary Schools . . .	·7	1·1	1·6	3·4	·5	1·3	1·8	3·6
Training Schools . .	62·3	28·3	19·3	109·9	80·8	30·0	20·1	130·9
Special Schools . . .	39·4	4·4	26·8	70·6	36·9	5·0	23·2	65·1

The large decrease in the cost of educating a student in Arts colleges is due to the large increase in the average number of students in each college; though the fees have increased more rapidly than the number of students, the subscriptions, etc., have not risen in proportion, and hence there is a small decrease in the average amount paid from private sources. The other changes do not call for special remark, but it is satisfactory to note that in primary and secondary schools the increase of cost is met from private sources.

For the purpose of comparison it may be stated that the average cost of educating a child in the elementary schools of England and Wales is nearly £2, or more than R30.

CHAPTER III.

CONTROLLING AGENCIES.

20. Plan of the Chapter.—As already stated (paragraph 3), the plan of the present chapter differs from that of the corresponding section of the last Review. Shortly before that Review was written, the principle of Local Self-Government had been adopted by the Government of India, and in every province action had been taken, or was being taken, to transfer to local bodies some of the authority in educational matters formerly exercised by the Department. Sir Alfred Croft made this action of the Local Governments the ground-work of the greater part of the section on Controlling Agencies, and described very fully the nature and extent of the powers conferred upon District and Municipal Boards with regard to the management of schools, the funds placed at their disposal for educational purposes, and the manner in which those funds were expended. The present chapter deals chiefly with the agency employed by the Boards and by Government for the supervision of schools, and the results of the transfer of control, as far as they can be ascertained from the provincial reports, in some of which the information given is exceedingly meagre. A summary of the expenditure of District and Municipal Boards has been given in the preceding chapter, and fuller details will be given in subsequent chapters

21. Strength of the Inspecting Staff.—The following table shows the number of inspecting officers of all grades in March 1887, and in March 1892. The head of the Education Department in each province, except Assam and Coorg, is not included in the table, though inspection usually forms part of his duties, in the two provinces named he has the rank of an Inspector, though in Assam his designation has recently been changed to Director of Public Instruction.

Province.	Inspectors.		Assistant Inspectors.		Deputy Inspectors or Sub Assistant Inspectors		Sub-Inspectors or Assistant Deputy Inspectors.		Inspecting Pundits or Inspecting School masters (including Chief Gurus)		Superintendents of Hill Schools and other Primary Schools.		Inspectresses	
	1886-87	1891-92	1886-87	1891-92	1886-87	1891-92	1886-87	1891-92	1886-87	1891-92	1886-87	1891-92	1886-87	1891-92
Madras	8	4	.	9	72	60			158	217	14	6	1	2
Bombay	4	4	1	1	29	24	29	47				..		
Bengal	6	6	10	10	47	47	195	194	1,290	921			1	1
North-Western Provinces and Oudh	8	5	2	8	47	47	35	30		..		.	..	...
Punjab	4	4	7	7	29	30		..	.			...		1
Central Provinces	3	3			22	22			...					
Upper Burma	...	1	.			7	..	.	.					.
Lower Burma	2	2			17	20		2		.				
Assam	1	1			9	4	22	24		1			..	..
Coorg	1	1			1	1	.		..	...			...	...
Hyderabad Assigned Districts	1	1		.	7	7	1	2		.			.	.

In this table no attempt has been made to class together officers of the same rank in different provinces; it will be shown later that in some cases officers with the same or similar designations differ very much in status, and also in the nature of the duties they have to perform.

In the following paragraphs the changes shown in the table are explained with special reference to the recommendations of the Education Commission that the staff of officers should be increased, that the pay of subordinate officers

should be raised, that native gentlemen of approved qualifications should be considered eligible for appointment as Inspectors, and that Inspectresses should be appointed to supervise girls' schools (VII, 9, 10, 12, 13).

22. **Madras.**—In the last review Sir Alfred Croft stated that it was in contemplation to increase the number of inspectorships in Madras from seven to nine by a redistribution of the circles. In 1886-87 one new inspectorship was created, and a native of India was appointed to the post. The Local Government refused, however, to create a ninth appointment, the cost of inspection being considered to be already too high. (It amounted at that time to rather more than one-fifth of the entire expenditure from provincial revenues, without including the cost of direction.) As the circles were still too large for efficient supervision, the Director proposed a scheme for a complete reorganisation of the inspectorate, increasing the number of superior officers and at the same time reducing the annual cost. This scheme was sanctioned by Government, and was carried into effect at the end of 1888. The province was divided into four circles instead of eight, so that the number of officers of the superior graded service was reduced by one-half. Three of these circles were split up into three divisions each, and an Assistant Inspector was appointed for each division; in the fourth circle, which comprised the districts on the west coast, Coorg and Bangalore, no Assistant Inspector was considered necessary. The nine Assistants were divided into three grades, corresponding to the first three grades of the subordinate graded service of Bengal the pay ranging from R200 to R500 a month. The number of Deputy Inspectors was reduced from 73 to 58, the maximum pay was reduced from R250 to R150, and the designation was changed to Sub-Assistant Inspector. The number of these officers was afterwards raised to 60, by the appointment of two additional officers for Muhammadan schools, there being now one such officer in each circle. Two Inspectresses were employed instead of one, and five of the Sub-Assistants were placed under them. The latter are being gradually replaced by trained female teachers, as opportunity offers. The number of Superintendents of Hill Schools in the Agency tracts in the north of the province, which was 4 in 1887, was raised to 6 in 1891-92. These complete the inspecting staff under the direct control of the Department; the Inspecting Schoolmasters, whose number has risen from 158 to 217, are employed by Local and Municipal Boards, but the question of transferring them to provincial service is under consideration. In 1887 there were also 10 Superintendents of primary schools employed by Municipalities, but these have since been replaced by full-time Inspecting Schoolmasters. The duties of these different classes of officers will be described in a later paragraph.

23. **Bombay.**—In Bombay there were five inspection circles in 1887, but one post was vacant on the 31st March, so that the table shows only four Inspectors. During the year 1887-88, the number of circles was reduced to four, each circle being made conterminous with a revenue division, the Inspectors of the three divisions forming the Presidency proper, each taking a share of the work in the city of Bombay. One of the four Inspectors is a native of India, and at the end of 1891-92 another native was officiating for one of the European Inspectors, who was then on leave. The Assistant Inspectors shown in the table is employed in Kathiawar, and is paid from the Kathiawar Educational Fund. The reduction in the number of Inspectors is said to have necessitated additions to the subordinate staff, but no details are given in the reports; the Civil List shows 24 Deputy Inspectors in 1892 against 29 in 1887, and a list furnished by the Director shows that there were 47 Assistant Deputy Inspectors in March 1893 against 29 in 1888.

24. **Bengal.**—In Bengal there are five Inspection circles, four of them consisting of two divisions each, and the fifth of a single division. Besides the five Inspectors in charge of these circles there is a special Inspector for European

schools, with an Assistant Inspector under him. In 1887 there was an Assistant Inspector in each of the nine divisions, including the Joint Inspector of Orissa, but vacancies that occurred in two divisions were not filled up. The former number was, however, made up by the appointment of two Assistant Inspectors to superintend Muhammadan education, one in Eastern Bengal and one in Behar. The number of Deputy Inspectors is also unchanged: in one district there are two officers of this grade, and all the other districts have one each. In 1887 there were 195 Sub-Inspectors, including the Education Clerks of 9 districts, who were required to do inspection work in addition to their own duties as clerks to the District Committees of Public Instruction. On the formation of the District Boards in 1887-88 these Committees ceased to exist except in a few non-regulation districts; the education clerks were transferred to the Boards with additional office work, and ceased to be inspecting officers. This caused a loss of 7 Sub-Inspectors, and some other changes that took place about the same time reduced the number to 185, of whom 139 were transferred to the service of the District Boards, and 46 retained by the Department for the inspection of schools not transferred to the Boards. The total number is now 193, but it is not stated how many of these are departmental officers. Below the Sub-Inspectors come the inspecting pundits and chief gurus, whose number has decreased from 1,290 to 921. Chief gurus are gradually being replaced by inspecting pundits, and as the latter receive higher pay, and take charge of a larger number of schools, this accounts for the decrease in the number of the two classes taken together. Most of them are in the service of the District Boards, but some receive their pay from the Department, and some from municipalities. To this class might be added the circle pundits, who number from 100 to 150; in the provincial reports they are not counted as inspecting officers, but it will be shown in a later paragraph that their duties differ very little from those of chief gurus. The girls' schools in the neighbourhood of Calcutta are under the charge of an Inspectress, but unlike the Inspectresses of Madras, she has no subordinate staff. Of the higher inspecting officers three Inspectors and one Assistant Inspector are Europeans, all the others being natives of India, including one Eurasian.

25. **North-Western Provinces.**—In 1887 there were 8 Inspectors in the North-Western Provinces, of whom 5 were European officers of the superior graded service, and 3 natives of India drawing pay corresponding to that of an Assistant Inspector. One of the Inspectors had charge of the European schools of the province, and was allowed an Assistant for the work of his circle, and there was also a European Assistant Inspector for Oudh. In 1887-88 the inspectorate was reorganised with a view to placing all the vernacular schools under the charge of native Assistant Inspectors. Nine of these officers were appointed, while the number of Inspectors was reduced to three; but it was afterwards found necessary to create a fourth inspectorship. The table shows five Inspectors and 8 Assistants, because one of the latter has been allowed to retain the designation of Inspector, though performing the duties of an Assistant. The number of Deputy Inspectors, 47, remains unchanged, one of these officers being appointed to each district. In 1887 there was a Sub-Inspector for each district except those of Oudh, but five of these posts have since been abolished.

26. **Punjab.**—In this province some additions were made to the inspecting staff in 1886-87 (paragraph 102 of the last Review). At the end of that year it consisted of 4 Inspectors with 6 Assistant Inspectors under them, one Assistant Inspector in independent charge of the Derajat Division, and 29 District Inspectors, corresponding to the Deputy Inspectors of Bengal. Owing to the fewness of the schools no special officers were appointed for the Simla and Kohat districts, the schools being placed under the supervision of the head master of one of the Board schools at head-quarters. The work of the staff has increased so much

during the last few years, in consequence of the introduction of the payment-by-results system (1886), and the extension of the grant-in-aid system to indigenous schools (1887), that it is now under contemplation to appoint Assistant District Inspectors. It has been found necessary to allow the District Inspectors to accompany the Inspector or Assistant Inspector for a month or two each year into other districts, in order to complete the work of examination of the schools. Some relief has been afforded by the transfer of the Mooltan district from the Lahore Circle to the Derajat Circle. The Assistant Inspector in charge of that circle has been raised to the rank of Additional Inspector, and another District Inspector has been appointed to act as his Assistant. In 1889-90 an Inspectress of Schools was appointed, with jurisdiction over all girls' schools within municipal and cantonment limits, schools outside those limits remaining under the charge of the Inspectors and their subordinates. Three of the Inspectors and the Inspectress are Europeans, but all the other members of the staff are natives of India. The Principals of the Central Training College and the Mayo School of Art are also inspecting officers, the former having charge of the normal schools, and the latter inspecting all industrial schools.

All the officers are now paid from provincial revenues. The District Inspectors were formerly paid from local funds, but in 1886-87 the District Boards were relieved of this charge, and were required to spend the amount so saved on primary and indigenous schools.

27. Central Provinces.—In the Central Provinces no change had been made in the number of inspecting officers before the end of 1891-92, but during that year Government sanctioned the appointment of three Assistant Inspectors on salaries ranging from ₹200 to ₹300, and 10 additional Deputy Inspectors, of whom five are intended for the Chhattisgarh division alone, the native states of which are said to have been without any system of inspection at all. In 1889-90 the scale of pay of the Inspectors was revised; one third-grade appointment (₹750 to ₹1,000) was abolished, and an ungraded appointment on a fixed salary of ₹500 was created in its place. In addition to the Inspector General the staff consists of three Inspectors, and 22 Deputy Inspectors, of whom 19 are in charge of districts, and three are employed in feudatory states. All the officers are paid from provincial revenues. All the Inspectors are Europeans, but on several occasions natives of India have been appointed to act for officers absent on leave.

28. Burma.—The operations of the Education Department were extended to Upper Burma in 1889. After the Director had spent three months in visiting the head-quarters of the various districts to ascertain the best method of introducing a departmental system of education, an Inspector was deputed for four months to examine for results such schools as were prepared to submit candidates, and to register such schools as were fit to receive aid from Government. "Two Deputy Inspectors were also appointed to register the existing indigenous schools, lay and monastic, and to explain to the managers the entire scheme of Vernacular education and the nature of the aid the Government is prepared to give." Early in the following year a permanent Inspector was appointed, with 6 Deputy Inspectors, each of whom had charge of three districts. Shortly afterwards a separate Deputy Inspector was appointed for the town of Mandalay, the cost being defrayed by the municipality, though the tables do not show any expenditure from municipal funds on inspection. During the year 1891-92 the appointment of four more Deputy Inspectors was sanctioned, but the appointments were not made till after the close of the year. The Director recommended in 1890-91 that a Sub-Inspector should be appointed in each district, to relieve the Deputy Inspectors of a part of their work. "The applications for the inspection and registration of schools are so numerous that

at present the Deputy Inspectors have scarcely time to pay more than one visit in the year to a school. Even with this economy of work it is impossible for them to visit all the schools in their circle." Even with the addition recently sanctioned each Deputy Inspector has on the average more than 300 public, and 200 private institutions in his circle.

In Lower Burma the number of Inspectors, two, remained the same throughout the five years, but in 1891-92 the Director proposed that an additional officer should be appointed, and the whole of Burma, Upper and Lower, divided into four circles. The Resolution on the report for that year states that this proposal has been sanctioned by the Secretary of State. The number of Deputy Inspectors has been raised from 17 to 20, one of the newly appointed officers having charge of the Muhammadan schools of Arrakan. Four of the Deputy Inspectors are Karens, and have charge of schools intended for children of that class. Two Sub-Inspectors were appointed in 1891-92, and the Director considers that such officers are needed in all districts.

29. Other Provinces.—In Assam the head of the Department was formerly called Inspector of Schools, but in 1888-89 his designation was changed to Director of Public Instruction. There is no other Inspector in the Province. In 1887 there were 9 Deputy Inspectors, and 22 Sub-Inspectors, some of the latter belonging to the provincial service, and some being employed by Local Boards. In 1887-88 one Deputy Inspectorship was abolished, two Sub-Inspectorships being created in its place. In the following year all the Sub-Inspectors were transferred back to the provincial service, and their circles changed so as to give at least one officer to each sub-division. The pay of these officers was extremely small, one receiving only R20 a month, and the salaries of the others ranging from R30 to R50, while the pay of the Deputy Inspectors ranged from R75 to R200. As the local Government was unable to add to the total cost of inspection, the pay of the officers could not be increased without decreasing their number; it was therefore resolved to reduce the number of Deputy Inspectors from 8 to 4, each officer taking charge of two districts, the minimum pay being raised from R75 to R125. The number of Sub-Inspectors was not changed, but the pay of each grade was raised 50 per cent. Although the educational system of Assam very closely resembles that of Bengal in most respects, it differs from it in the absence of a subordinate inspecting agency corresponding to the inspecting pundits and chief gurus, only one officer of this class being shown in the returns for 1891-92, and none in the previous year.

The head of the Department in Coorg is the Inspector of the Western Circle of Madras. In 1887 he was also Principal of the Central School at Merkara, but he was relieved of this charge in 1888-89, when the Madras inspectorate was reorganised, and another district added to his jurisdiction, besides the schools in Bangalore. There is only one Deputy Inspector, the total number of schools being considerably less than the average number under the charge of the officers of similar rank in Madras.

In Berar the only change is the appointment of an additional Sub-Deputy Inspector. All the officers, including the Director, are natives of India.

30. Cost of Direction and Inspection.—The next table shows, province by province, the total amount spent on direction and inspection from public funds and the proportion borne by this expenditure to the total expenditure on education from the same sources. Expenditure from private sources is not shown in the table. In Bombay it amounts to over half a lakh of rupees, and includes R12,000 from fees, probably examination fees, and R43,000 from other sources, chiefly the revenues of native states. In all other provinces the amounts are insignificant, never exceeding one or two per cent. of the total expenditure.

Cost of Direction and Inspection.

Province.	1886-87. Provincial Revenues. R	Percentage to total Provincial Expenditure.	District Funds. R	Percentage to total District Fund Expenditure.	Municipal Funds. R	Percentage to total Municipal Fund Expenditure.	Total Expenditure from Public Funds. On Direction and Inspection, *i.e.*, the sum of (1), (3), and (5).	On Public Instruction.	Percentage of column 7 to column 8.	1891-92. Provincial Revenues. R	Percentage to total Provincial Expenditure.	District Funds. R	Percentage to total District Fund Expenditure.	Municipal Funds. R	Percentage to total Municipal Fund Expenditure.	Total Expenditure from Public Funds. On Direction and Inspection, *i.e.* the sum of (1), (3), and (5).	On Public Instruction.	Percentage of column 7 to column 8.
	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9
Madras	3,13,328	23·22	56,958	10·25	7,446	4·55	3,77,732	20,68,245	18·3	3,30,603	18·88	81,641	9·93	10,588	4·89	4,22,832	27,82,259	15·2
Bombay	2,50,344	14·0	...	...	...	...	2,50,344	27,08,094	9·2	2,56,634	13·0	1,961	·2	1,470	·4	2,60,065	31,97,086	8·1
Bengal	5,52,777	17·69	2,476	14·66	400	·51	5,55,653	32,18,719	17·3	4,13,420	16·56	2,34,863	22·33	406	·49	6,48,689	36,30,123	17·9
North-Western Provinces and Oudh	38,462	7·2	2,40,412	17·7	...	..	2,78,874	19,70,301	14·2	41,266	7·5	2,52,399	17·5	...	...	2,93,665	20,93,767	14·0
Punjab	1,27,395	17·04	44,044	9·00	685	·22	1,72,124	15,43,285	11·2	1,88,200	21·56	15,422	2·56	1,630	·48	2,05,252	18,15,652	11·3
Central Provinces	1,15,667	32·60	...	...	...	...	1,15,667	6,02,462	19·2	1,06,557	27·71	60	·03	...	...	1,06,617	6,33,350	16·8
Upper Burma	...	...	...	...	...	...	...	...	...	33,077	42·30	...	...	..	...	33,077	79,210	41·8
Lower Burma	55,878	21·86	29,035	20·95	1,718	·59	86,631	6,84,986	12·6	60,924	20·12	32,323	23·52	11,129	5·20	1,04,376	6,54,149	16·
Assam	44,585	31·36	12,656	8·16	...	...	57,241	3,02,035	18·9	57,702	34·40	...	...	...	...	57,702	3,33,678	17·3
Coorg	2,226	11·1	77	1·5	...	...	2,303	26,643	8·6	4,238	22·23	...	...	...	...	4,238	27,866	15·2
Hyderabad Assigned Districts	45,894	18·8	751	·7	...	...	46,645	3,57,042	13·1	49,904	21·4	1,224	·95	...	...	51,128	3,71,044	13·8
Total	15,46,556	18·1	3,86,409	10·4	10,249	·8	19,43,214	1,34,81,812	14·4	15,42,525	17·5	6,19,893	11·5	25,223	1·8	21,87,641	1,56,18,184	14·0

Excluding Upper Burma, where the educational system is not yet sufficiently organised for the expenditure on inspection to sink to its normal proportion, Bengal shows the highest expenditure, both absolute and proportionate, and also the largest increase, R93,000, during the five years. Bombay comes at the other end of the scale, the expenditure under this head being only 8·1 per cent. of the total expenditure from public funds, and if all the expenditure from private sources is included, the proportion is still below 10 per cent. In every province except the Central Provinces, where there is a decrease of R9,000, the total expenditure has risen, but in Madras, Bombay, and Assam the increase is small in comparison with the increase of expenditure under other heads, so that the percentage has fallen. In the North-Western Provinces, the Punjab, and Berar the percentage is practically unchanged, the first showing a small decrease, and the other two a small increase. In Bengal the percentage has risen from 17·3 to 17·9, in Lower Burma from 12·6 to 16, and in Coorg from 8·6 to 15·2. This last increase is merely nominal; in 1887 the Inspector was also Principal of the Central School, and no part of his pay was included under the cost of inspection; but when he was relieved of that charge, the portion of his salary (one-sixth) paid by the Coorg Government was transferred to this head. In Lower Burma, for reasons already stated, the total expenditure has decreased while the cost of direction and inspection has increased by more than 20 per cent.

In the North-Western Provinces the entire cost of inspection is defrayed from local funds, the expenditure from provincial revenues representing the cost of direction only. In Lower Burma all officers below the rank of Inspector receive their pay from Local or Municipal Funds, while in Bengal and Madras the officers so paid are below the grade of Deputy Inspector. In the Punjab the District Inspectors are paid from Provincial revenues, but the District Boards pay the cost of their office establishments. In other provinces the expenditure from local sources is very small.

31. Duties of Inspectors and their Subordinates.—Madras.—In Madras a code of rules for the guidance of Inspectors has been drawn up, as recommended by the Education Commission (VII, 14), and received the approval of the Local Government in 1891-92, but owing to impending changes in the establishment of inspecting officers it was not promulgated before the end of the year. The chief provisions of the code are, however, already in force, and the duties of each grade of officers have been clearly defined. Inspectors are required to inspect and examine all colleges, high schools, normal schools for masters, special schools, and schools for Europeans, and to supervise the work of the Assistant Inspectors, more especially that part of it which is connected with Municipal and Local Boards. It is the duty of an Assistant Inspector to inspect all the middle and upper primary schools in his division, and to supervise the work of the subordinate staff. Sub-Assistant Inspectors ordinarily have charge only of lower primary schools, but they may be required to inspect upper primary schools, especially those in which the upper primary section is not of a permanent character. The chief function of the inspecting schoolmaster is to inspect indigenous schools, and prepare them for recognition by the Department as primary schools. A more detailed account of the work done by officers of this class will be found in the chapter on Primary Education. Although inspecting schoolmasters are paid from Local Funds, they are under the immediate control of the Sub-Assistant Inspectors, and a code of rules has been drawn up for their guidance. Inspectors and Assistants are expected to be on tour eight months in the year, and inspecting schoolmasters three weeks in each month. Sub-Assistant Inspectors receive a fixed monthly travelling allowance of Rs. 25, which is reduced to one half if they are on tour less than 18 days in the month, and lapses if they are

out less than 10 days. During three months of the year there is special work at head quarters; and then no reduction is made. This system appears much better calculated to secure regular work than the ordinary one of allowing officers to draw mileage, and fixing a minimum number of days for the whole year.

32. **Bengal.**—A code of "Rules and Orders of the Bengal Education Department" is now in the press, which contains detailed instructions for all grades of inspecting officers. The classes of schools to be inspected by officers of each grade are much less clearly defined than in Madras. Zila schools are under the immediate control of the Circle Inspector, and he alone has the right to inspect colleges and madrasas under the charge of officers of the subordinate graded service, but an Assistant Inspector may be deputed to inspect a zila school. All schools below the grade of a zila school are subject to inspection by Assistant, Deputy, and Sub-Inspectors, while primary schools are also inspected by inspecting pundits. The duties of inspecting pundits differ very little from those of inspecting schoolmasters in Madras; they are under the orders of the Sub-Inspectors, and are paid by the Boards, their salary being R15 a month with R5 a month as travelling allowance. Chief gurus are classed with these officers in the provincial reports, but their duties are different. A chief guru is the head master of a school, and in addition to what he can earn from fees and rewards in his own school he receives a small allowance for inspecting and training the teachers of a few neighbouring schools. The circle pundit differs from both classes of officers. When there are three upper primary schools within three or four miles of one another that are likely to develop into middle vernacular schools, a circle pundit is appointed as head master of all of them. He usually spends two days a week in each school, and often the boys in the highest class move about with him from school to school These officers are Government servants, and receive from R15 to R25 a month. The Director is required to be on tour for three months in the year, Inspectors and Assistant Inspectors for 120 days, Deputy Inspectors for 150 days, and Sub-Inspectors for 200 days.

Bengal is the only province in India in which the subordinate inspecting staff is not under the control of the Department. The Act constituting the District Boards did not provide for a separate inspecting agency, but it was considered advisable to place the Sub-Inspectors under the control of the Boards, though this is contrary to the recommendation of the Commission (VII, 9) that results should be tested by departmental agency. Sub-Inspectors transferred to the Boards from Government service retain their claim to promotion in the graded service, and may be transferred by the Director, but in practice it is found very difficult to promote or transfer them without disturbing the budget allotments of the Boards A similar difficulty is experienced in Burma, where, however, the officers belong to the provincial service, though paid from Local Funds.

33. **North-Western Provinces.**—In these provinces the "Manual of General Orders" and codes for various classes of schools contain instructions for Inspectors and their subordinates. Zila schools are inspected by the Inspector, but he is not required to hold the annual examination of the classes. Anglo-vernacular schools are inspected by the Inspector or his Assistant, the latter being also required to visit all middle vernacular schools at least once a year. These schools are, however, directly under the charge of the Deputy Inspector, or Sub-Deputy Inspector, who also inspects primary schools. In Oudh there are no Sub-Deputy Inspectors, but in the North-Western Provinces, if the number of schools in a district exceeds 80, the district is divided into two circles, one under the charge of the Deputy, and the other of a Sub-Deputy Inspector. The latter is in some respects independent of the former, but he is not allowed to hold the annual examination of the schools, though he assists the Deputy in this work;

Both of these officers are required to be on circuit not less than twenty days in the month on the average. Deputy Inspectors are appointed by the Director in communication with the Boards, and Sub-Deputy Inspectors by the Boards subject to the approval of the Director. Their pay and promotion are regulated by the grades of pay in the Department, and no extra pay can be given by the Boards without the sanction of the Director.

34. Punjab.—The "Punjab Education Code" defines the duties of the different grades of inspecting officers, and the mode of procedure at inspection visits to schools. Every public school must be visited twice a year, once for the determination of the grant, and once by surprise. The Inspector is expected to be present at the annual examination of every secondary school in his circle, and to pay surprise visits to high schools. The Assistant Inspector conducts the examination of all primary schools, generally with the assistance of the District Inspector. The District Inspectors do not hold any independent examinations, but are required to inspect all the vernacular and indigenous schools in their districts, and all the Anglo-vernacular Board Schools, if their knowledge of English is sufficient. They are required to spend twenty days on tour each month, but the code does not prescribe any minimum for Circle and Assistant Inspectors.

35. Other Provinces.—In the Central Provinces a code is in course of preparation. Circle Inspectors are required to examine once a year all the scholars of zila and Anglo-vernacular schools, and some of the vernacular schools aided on the results system. They also superintend the training schools, and examine candidates for teachers' certificates. The Deputy Inspectors inspect all District Council schools three times a year, examine aided vernacular schools, and conduct the lower and upper primary examinations. They submit their diaries and reports to the District Councils for orders, but their tenure of office is independent of those bodies. This is the opposite of the Bengal system, where the Sub-Inspectors submit their diaries, etc., to the departmental Deputy Inspectors, but hold office from the District Boards.

The "Education Code" of Burma is a manual for the guidance of inspecting officers, as well as managers and teachers of schools. The instructions regarding the method of inspection are almost identical with those in the draft code for Bengal. The Deputy Inspectors are responsible for indigenous schools, and are required to travel through their districts twice a year, once for the purpose of examining the schools for results grants, and once for inspection only. They must be on tour not less than 200 days in the year. The Inspectors conduct the annual examination of Anglo-vernacular and European schools, and are required to go through the interior of their circles once a year in company with the Deputy Inspectors. In order to give them more time for this work the offices of the two Inspectors have been amalgamated.

In Assam rules have been drawn up for the guidance of Deputy and Sub-Inspectors, but they differ so little from those of Bengal that a separate account is unnecessary; the rules in Coorg are the same as in Madras. In Berar reports no mention is made of any code of rules for Inspecting officers, but Deputy Inspectors are required to be on tour for 180 days in the year. In the Bombay reports there is no chapter on controlling agencies, and no information is given regarding the duties of the staff.

36. Other Controlling Agencies.—Under this head are included District and Municipal Boards, Revenue and other officers of Government, the Punjab University, and the Educational Syndicate of Lower Burma. The powers and functions of these agencies were so fully described in the last review that in most cases it will be sufficient to give a brief statement of the classes of institutions under their charge, with some extracts from the provincial reports showing

the results of the transfer of the control of schools from the Department to other bodies.

The various missionary societies exercise control over a very large number of institutions, but in the provincial reports they are not separated from other institutions under private management, and it is impossible to form even a rough estimate of the total number. The work of the missions is not confined to any one grade of education. They support about one-third of the Arts colleges of India, and, at the other end of the scale, a large number of primary schools for aboriginal and backward tribes. Schools of this class are found in all parts of India, but they are most numerous in Bengal, Assam, and Burma, while missionary institutions of a higher class are most plentiful in Madras. In 1892 the Chota Nagpur division alone contained 146 mission schools attended by 4,194 children, nearly three-fourths of the cost of the schools being borne by mission funds.

37. **Madras.**—In Madras no change of importance has been made since 1887 in the constitution or functions of Local Boards or Municipal Councils. The former are responsible only for the lower primary education of boys in rural circles. Where they maintain schools containing classes of higher grade, these classes are eligible for aid from provincial revenues. The responsibility of Municipal Councils extends as far as the lower secondary or middle stage, girls' schools and schools for Europeans being excluded. In 1887-88 the Director recommended that grants to the fourth, or upper primary standard should be paid from Local Funds, and grants to upper secondary or high school classes from Municipal Funds, and that the budget grants from these funds should be transferred as contributions to provincial revenues, and distributed by the Department, the chief reason for the proposal being that a large proportion of the budget allotment for education remained unspent. The Local Government, however, considered that the local inerest and knowledge possessed by the Boards should continue to be availed of, and that all the funds at their disposal could be utilised in the extension of primary education. The total expenditure from both sources, and the increase during the last five years, have been shown in the preceding chapter, but it may be remarked that in 1891-92 Local Boards spent 5½ lakhs on primary schools and departments, against R30,000 on secondary departments, and Municipal Councils R1,26,000 against R41,000.

38. **Bombay.**—The only change recorded in the Bombay reports is the passing of a Municipal Act for the city of Bombay in 1888. The bye-laws framed under this Act require the municipality to provide primary schools for all castes and classes of the community; and place the schools under the control of a Joint Schools Committee. Most of the primary schools within municipal limits throughout the province are maintained by the municipalities on the "contract grant" system, Government paying to each municipality a lump sum equal to one-third of the total cost of the schools; this contract grant being fixed for five years. This period expired in 1891-92, but no revision of the grant was made, and many of the municipalities are said to be dissatisfied, and to have commenced to reduce their educational expenditure. Local Boards also receive a large grant from provincial revenues for the maintenance of primary schools, and in 1890 an addition of a lakh of rupees was made to this grant. Both Local and Municipal Boards maintain a few secondary schools, though they are responsible only for primary education. A revision of the District Boards Act is alluded to in the report for 1889-90, and it is stated that the machinery by which the administration of the village schools is conducted has worked smoothly and without friction, and that the Taluka Boards have in many instances shown an intelligent appreciation of their duties.

Regarding Municipal Boards one Inspector writes that "speaking generally, municipalities appear to be gradually dividing themselves into two classes—those which steadily improve and those which steadily deteriorate—and that, roughly speaking, the division corresponds with that into large and small." Another Inspector says: "In the large towns the administration of schools is generally conducted on intelligent principles, and the Department has few difficulties to encounter. In the smaller towns much depends upon the activity and energy of the President, who is now usually an officer of Government. I have before expressed my opinion that the boards generally understand their duties better and perform them more adequately from year to year, and I do not wish to withdraw from that opinion, but it must be understood that, in the smaller towns at least, good administration is often the result of the combined efforts of the Department and of the official President, and that the strain thrown on educational officers of maintaining an effective supervision over the boards is no light one." Frequent reference is made in the reports to the good effect upon the schools of visits from Revenue officers, and some of these officers often inspect the schools in company with the Deputy Inspector.

93. **Bengal.**—In the last review Sir Alfred Croft described the powers conferred upon the District Boards of Bengal by the Local Self-Government Act of 1885. A few of the Boards assumed active charge of their educational duties in 1886, but in most cases the schools were not transferred to the control of the Boards till the beginning of the year 1887-88. The educational rules framed in accordance with the Act left some room for doubt regarding the classes of schools intended to be transferred, but the classes were clearly defined when the rules were revised in 1890. The new rules increased the powers of the Boards in all questions relating to the appointment, promotion, and dismissal of officers, by relieving them of the necessity of obtaining the consent of the Department. In these matters, as well as in questions relating to the management of schools, the power of the Inspector is limited to that of making recommendations, but in every district but one the Deputy Inspector has been appointed an *ex-officio* member of the Board, as well as of the Committees appointed by the Boards for the control of education, and this has given to the Department a voice in the management of the schools. All primary and middle schools, both departmental and aided, in the areas under the jurisdiction of the Boards have been transferred to their management, but no change in the system of administration or control can be made without the sanction of Government, the conversion of middle vernacular into middle English schools being expressly mentioned as requiring sanction. In 17 districts out of 38, the District Boards have transferred the control of primary education to Local Boards, while in 5 districts their connection with education is extended to middle schools. In the last report this delegation of authority is said to have been attended with varying success, and in the Resolution on the working of the Boards the Lieutenant Governor stated that Local Boards should have no concern with secondary education, and expressed a doubt whether they should be allowed to manage primary schools. During the six years that the District Boards have been in existence they "have gradually learned to work in harmony with the Educational Department for the advancement of education," but at first cases of friction between them and the inspecting officers frequently occurred, and as late as 1890-91 an Inspector complained that one Board "preferred to follow the advice of middle school pundits rather than his own in regard to the improvement of their schools." In 1889-90 the Magistrate of Rungpore wrote: "The Board's main attention is concentrated on the numerous and important public works undertaken under its auspices, and educational operations come in for a very secondary share. We

have an Education Committee which meets monthly and works fairly, and we work harmoniously with the educational authorities. I am, however, inclined to doubt the wisdom of relieving the Education Department of the charge of schools above the upper primary status. It should be borne in mind that education is peculiarly an art which needs special training and special aptitudes, neither of which is or can be possessed for many years to come by such bodies as District Boards. Under present auspices, the heat and burden of the day are borne by the Chairman, who cannot be expected to exercise the minute supervision essential to a proper utilisation of the Board's funds." The Commissioner of Chittagong held a similar opinion, for he said: "I doubt much if the interests of education have been promoted by the smaller control now exercised by your Department," while the Director, in his remarks upon these statements and criticisms, stated that "this decline in efficiency is part of the necessary price paid for local self-government." The Inspector of the Rajshahye Circle expressed even stronger opinions, for in 1891 he wrote: "The usual composition of a District Board, or at least the composition of the small number who end a Board's meetings, is such as to render it unfit to deal with the difficult problems presented by the administration of middle and primary schools. The most influential men on these Boards are usually pleaders or muktears, men almost invariably foreigners to the district the people of which they are supposed to represent, with absolutely no knowledge often of the geography and always of the requirements of the interior of the district. It is true that zemindars are occasionally appointed members, but they very rarely attend, and give but little help to the Board with advice and local knowledge." The Boards have no control over schools in municipal or cantonment areas, and here, as well as in the non-regulation districts where Boards have not been created, the management of schools rests with the Department. Municipalities in Bengal have very little connection with education, their total expenditure in 1891-92 being only R82,000.

40. **North-Western Provinces and Oudh.**—The provincial reports do not record any change in the constitution or functions of the District Boards. They have control over the town schools, including the tahsili and pargana schools, which are graded as middle vernacular, the village or halkabandi schools, which are ordinarily of the primary grade, and schools for girls in villages or towns. All the expenditure on zila schools is met from the funds at the disposal of the Boards, but they exercise no control over the schools; they also pay the entire cost of inspection, but are not in any way responsible for the mode of expenditure. Even in their own schools the power of the Boards is much less than in Bengal. The appointment of teachers requires the sanction of the Department, and definite rules have been laid down regarding the qualifications teachers must possess, and the scale of pay, while the departmental officers are entrusted with the examination of the schools. As in other provinces, there is great diversity of opinion regarding the work done by the Boards. In 1887 one officer wrote: "As I noted last year, the district board takes a great interest in the department of education. Questions of shutting up and opening schools are generally warmly debated, and as there usually are several members of the board intimately acquainted with each locality in question, these matters are thoroughly threshed out and correct conclusions usually arrived at. I consider that, on the whole, the district board has done its duty with respect to education in a satisfactory manner." Most of the district officers whose remarks are quoted in the report for that year held similar opinions, but in the following year they submitted much less favourable reports. One officer said: "As regards the District Board, it is possible to induce an occasional member to interest himself in a particular school, but the collective influence of the Board is

decidedly weak. As far as I have seen, the Board, unless the Collector is insistent, will never dismiss or reduce the pay of any schoolmaster, however flagrant may be his shortcomings, while it is always prepared to raise salaries. There is no real wish on the part of most of the members to educate the agriculturist, nor have they a sufficient sense of responsibility either towards an electorate or towards the Government. Unless the Collector and the Deputy Inspector see to all details themselves and insist on school-masters doing some work for their pay, halkabandi posts in this district would degenerate into genteel pensions and no one would grumble." A year later, the Director stated that the Collector of Agra considered that the Boards in his district were doing good work in connection with the schools, but adds "but there is little or no encouragement for the system in the reports received from other districts or in what I have myself seen." The reports give no information regarding the connection of Municipal Boards with education. They contribute to the District Boards some part of the cost of schools maintained by them within municipal limits, but in all other respects appear to be on the same footing as missionary societies, or other private associations having the management of schools, of giving aid to schools.

41. **Punjab.**—In the Punjab the control of departmental schools of all grades was transferred to District Boards and Municipal Committees in the beginning of 1886-87, the only schools retained by the Department being schools for Europeans, practising schools attached to training institutions, and a few special schools. All new grants to aided schools were also made payable from the funds of the Boards within whose jurisdiction the schools were situated, but existing grants were still paid from provincial revenues, most of the schools receiving such grants being situated in large municipal towns. In 1889-90 it was proposed to transfer these grants, except in a few special cases, to the municipalities concerned; a part of the money thus set free to be given to some of the smaller municipalities, which were not in a position to make adequate provision for their educational requirements, but it does not appear that the transfer has yet been made. Each District Board may be required to spend upon education, in addition to the amount received in educational grants from provincial revenues and other sources and the fees of the scholars, 25 per cent. of its total income from all other sources. Of this last item three-fifths must be spent upon primary education, in addition to the grants and fees specially belonging to schools of this class. In municipalities the proportion of the general income to be spent on education is 10 per cent., but there is no fixed proportion for primary schools.

It appears, however, that the Boards do not spend the full proportion of their income required by the rules. District Boards spent on the average in 1891-92 about 20 per cent. of their general income instead of 25 per cent., a few spending more than the prescribed minimum, and one or two less than half or that amount. Municipal Boards spent on the average 44 per cent of the minimum, the principal municipalites averaging 35 per cent., and the minor ones 78 per cent. Regarding the work of the Boards the Director says in the last report, "Inspecting Officers are generally of opinion that the more enlightened members of District Boards take a real interest in the schools, especially in those at, or near, their homes, and that the cause of education is distinctly helped by their countenance and support. In some cases they make the success of the schools within their ilaqas a matter of considerable personal concern; and girls' schools have been frequently helped in this way. But it is also generally admitted that the actual management of what are called District Board Schools rests, not with the District Boards, but with the district authorities, assisted by the District Inspector" "Matters of importance," says one Inspector, "are, no doubt, laid before the meetings of the Boards, but they are generally decided in

accordance with the views held on them by the Deputy Commissioners. This is especially the case in financial matters, which the other members are not in a position to fully understand Instances. however are not wanting in which intelligent members have tried successfully to press their views on the other members, and to carry their points." "Municipal Boards are of a different type, and have generally assumed the actual management of the schools under their jurisdiction. Some are well-managed; the majority are fairly so; but a considerable number are neglected." Some instances of mismanagement are quoted: "Some of the larger municipalities, which spend next to nothing on education, will allow their schools to be overcrowded and in want of appliances, and will reluctantly give the small grants awarded under the code to private schools within their jurisdiction The salary of a head master will be reduced because of the strict observance of rules with regard to a pupil related to a member of the Committee.... The proposal to abolish a department of a school to get rid of an over-conscientious head master has more than once been put forward; and, at the present moment, a case has been reported to me in which the members of a Committee, to do harm to the repute of such a master, have actually started an opposition private school.... Nevertheless, I believe that things, in the worst cases, are better than they were, and that under the guidance of the already constituted controlling authority, which can always interfere to check irregularities, the true spirit may soon be awakened in the few remaining worst, as it has already been in the best, managing Boards." The controlling authority here referred to is the Deputy Commissioner, whose right of interference in such cases is expressly mentioned in the Punjab Code, where it is also stated that it is the duty of Tahsildars and Naib-Tahsildars to inspect all schools receiving support from public funds at least once, and generally twice, a year.

All the Universities of India exercise control over the course of study in high schools by means of the Matriculation Examination, and this to a greater or less extent influences the work of schools of lower grade. The direct influence of the Punjab University is much greater, since it has the control of the Middle School Examination, and is recognised as the adviser of Government in the promotion and supervision of popular education.

42. **Central Provinces.**—Up to 1883 the control of education in the interior of the Central Provinces was in the hands of the ordinary civil authorities. "The Commissioners, Deputy Commissioners, and their Assistants were as responsible for the various Government schools in their respective charges as for the Courts, Jails, Dispensaries, and district roads." Under them the Tahsildars were responsible for the spread of primary education among the masses. In 1883 the control of rural education in nearly every district was transferred from the Deputy Commissioner to a District Council, and the Tahsildars were replaced by Local Boards. At first the Tahsildar was merely a member of the Local Board, but before 1890 he was made *ex-officio* President, and so regained the influence he had formerly exercised over primary education. The District Councils have no authority over schools under private management, and in schools under public management they cannot prescribe or alter the course of study, their control being limited to matters of discipline and finance. For the more immediate supervision of the schools they appoint local committees. "The School Committee is the most essential part of our educational system, seeing that, by their means, the sympathy and co-operation of the people are enlisted. In securing attendance, enforcing the payment of fees, erecting or improving buildings, furnishing gymnastic and other apparatus, they are invaluable. Being residents of the villages in which schools are located and possessing local knowledge, their opinion is, ordinarily, of more value than that of an officer who pays a school occasional visits. The work of these bodies is, on the whole, favourably reported on." Some local officers hold a very different opinion. One Deputy

Commissioner writes: "School Committees are not productive of much good, and show but little interest in the schools they are supposed to manage. When I say that 90 per cent. of them are illiterate, it will not be difficult to understand such a state of things. If they would interest themselves in enquiring about absent boys, and get them to attend regularly, they might do useful work." Under these circumstances it is not to be wondered at that "the work of School Committees and Local Boards varies, to some extent, with the interest in schools taken by the Tahsildar." When the rural schools were thus transferred, the Government schools in towns remained under the charge of the Deputy Commissioners; but during the last two years many of these schools have been made over to the municipalities concerned, and this process of transfer is still going on. In 1884-85 a Standing Committee of Education was appointed, consisting partly of managers and supporters of independent institutions. "They have a voice in the arrangement and conduct of public examinations, the rate of fees, the terms of admission to school, the course of study, and so on. They have already settled the question of departmental school and college fees. The system introduced works well, and has resulted in increased fee collections. They select and appoint, or at least approve the selection of, middle school examiners." The above extract is taken from the report for 1887-88 but the later reports are silent regarding the work of the Committee.

43. **Burma.**—In the latest edition of the Burma Code no mention is made of District Boards, and since 1887-88 the returns have not shown any schools under their management, though in the following year District Committees are said to have rendered valuable assistance Municipalities are required to spend one-fifth of their income on education, but they are not bound to provide for any but primary education. It is, however, regarded as their duty to encourage the establishment and maintenance of secondary schools, after due provision has been made for indigenous primary schools. In the report for 1890-91 the Director says that "Municipal Committees instead of carrying out the policy laid down for them by Government are apt to try and carry out their own. This is most strikingly seen in the determined effort made by some to starve indigenous education for the Anglo-vernacular school in which the members are more interested, and to charge a rate of fee for English education that brings in a very small contribution towards the expenses of the school, while it seriously cripples vernacular education." "Some again are utterly indifferent, and between them all education has not a fair chance. The fact is that the members as a rule have neither the time nor the knowledge necessary to look after education, and in the municipal towns of Burma it is impossible to get together a body of men, with the necessary leisure educational experience, or sympathy to form an Educational Board and take educational matters in hand effectually." Another difficulty is the gradual reduction of the amount spent by municipalities on education. The total expenditure exceeds the minimum fixed by law, but is gradually approaching that limit, the decrease in the last five years amounting to three-quarters of a lakh, or more than 25 per cent. Every year salaries are reduced and masters are dismissed, and this has an influence extending far beyond the schools immediately concerned by deterring good men from adopting the profession of a teacher. "It should be borne in mind that all the higher education and all the Anglo-vernacular education in the province are being carried on within municipal limits, and it is this important branch of education that will suffer." In 1891-92 many of the municipalities reduced their expenditure to the minimum, and in some cases grants from provincial revenues were necessary for the support of secondary schools. The Director's suggestion that the control of the schools should be transferred to the Department was not accepted by the Chief Commissioner, and in the

Resolution on the last report the principle is laid down that, except in special cases, if the people want secondary education, they must pay for it.

The Educational Syndicate of Lower Burma has the charge of the Rangoon College, and conducts the examinations for teachers' certificates, for clerkships and other posts under Government, and the 7th standard or middle school examination, besides advising and assisting the Chief Commissioner in determining the provincial standards for schools of all grades. It consists of about 20 members, and as far as possible all educational interests are represented. At a conference held in 1889, and attended by a large number of managers of aided schools and others interested in education, all the members who were not Government officials or members of the Educational Syndicate unanimously resolved to recommend the transfer of the control of the middle school examination from the Syndicate to the Department "with a view to removing, if possible, the irksomeness and inconvenience, as well as the friction, which divided authority must always occasion school-managers."

44. **Other Provinces.**—In Assam "the educational functions delegated to Local Boards include the administration of grants-in-aid and special grants to middle and primary schools under private management, and the management of Government lower primary schools, which they are authorised to open when funds are available and the school supplies a recognised want," and the award of lower primary scholarships. The Deputy Inspectors are held responsible for seeing that the Boards do not grant money for educational purposes otherwise than in accordance with the grant-in-aid rules, and that these rules are observed by the Boards in their relations with aided schools. The Boards are not authorised to open either upper primary or secondary schools under their own management, and, except in backward places, their lower primary schools are all examined for rewards in the same way as aided schools. No secondary schools, and very few primary schools, are aided from provincial revenues. In 1890-91 the Director inspected the accounts of many of the Local Boards, and arrived at the conclusion "that, as a rule, the Boards do not sufficiently supervise their accounts, show little interest in educational matters, and that the members of Local Boards do little or no inspection, trusting entirely to the work done by the Sub-Inspector of Schools placed at their disposal, and in many cases even the work of the Sub-Inspector is very superficially seen to." Complaints are made of great delay in paying the gurus, and in one district some schools were found to be over 12 months in arrears. Municipalities have very little to do with education. In 1891-92 they maintained only 23 schools, none of them above the primary grade, and their total expenditure was only R4,673.

In Coorg there are no Local Boards, and very few municipalities. Some of the latter are said to contribute fairly well to education, while others give very small aid to schools, and this with great reluctance.

In 1886-87 four municipalities in Berar took over charge of all the primary schools within their jurisdiction, and all the reports show that the members of the Municipal Committees take great interest in the welfare of the schools and visit them constantly. The management of primary schools outside of municipal limits was made over to the District Boards in January 1892, but as yet the powers conferred on the Boards are very limited, for no direct order can be given to a teacher, and all appointments are subject to the control of the Department Municipal Committees have greater freedom in the selection of teachers; reference to the Department is unnecessary, except for the appointment of a teacher who has not passed the test examination prescribed in the rules of the Department. The members of the District Boards "have commenced to work in earnest, and there is every reason to hope that their exertions will lead to satisfactory results."

CHAPTER IV.

COLLEGIATE EDUCATION.

45. **The Indian Universities.**—The present section treats of the Universities only in their relation to Arts Colleges, English and Oriental. Questions relating to Law, Medicine, and Engineering will be dealt with in the chapter on technical education.

The number of Universities has increased from four to five, the Allahabad University having been established at the end of 1887. At present this University grants degrees only in Arts and Law, though its charter contemplates the grant of degrees in Science, Medicine, and Engineering.

In Arts all of the Universities grant the degrees of Bachelor and Master: the Punjab University adds to these the degree of Doctor of Literature, but up to the present time this degree has not been conferred except *honoris causâ*. In all the Universities a student is required to go through a course of study extending over four years after Matriculation before he can appear at the B. A. Examination, and to pass an examination at the end of the second year. In Bombay there is also an examination at the end of the first year. In this University the course formerly lasted only three years, but the rules have recently been assimilated to those of the other Universities. In the Universities of Madras and Allahabad a Bachelor of Arts must study for two years before he can appear at the M. A. Examination; in the other Universities there is no such restriction. The range of subjects prescribed for the B. A Examination differs considerably in the different Universities, but all of them except Bombay agree in requiring only one branch of study for the M. A. Examination; in Bombay most of the courses include two of the branches recognised as distinct subjects by the other Universities.

The Bombay University grants the degree of Bachelor of Science. The course prescribed for this degree is similar to that for the scientific side of the examination for the B. A. degree of the Calcutta University, but the exclusion of English from the examination enables the students to carry their scientific studies farther than is possible in Calcutta, where English is a compulsory subject The Senate of the University of Madras decided to institute a similar degree in 1887-88, and the report for that year states that the rules for the First Examination in Science had been adopted, but they have not been published in the University Calendar and apparently nothing further has been done. The Punjab University has regulations for an examination in Science, but no candidates have appeared.

In the Punjab University the Faculty of Oriental Learning grants the degrees of Bachelor Master, and Doctor As far as the B. O. L. standard the course of study corresponds very closely with that for the Arts examinations, both in nature and extent, the essential difference being that English is an optional subject, and that the examination is conducted in the candidate's vernacular. The examination for the M. O L. corresponds with that for the M. A., but candidates have only two subjects to choose from, Sanskrit and Arabic. The preliminary qualification for admission to the D. O. L. Examination is a double first class at the M. O L. Examination, as that for the D. Lit. is a double first class at the M. A. Examination. Considering that a candidate must obtain 80 per cent. of the total marks to be placed in the first class it is not a matter of surprise that no candidate has yet qualified for the degree of Doctor in either

Faculty. In addition to these degrees the Oriental Faculty also gives diplomas and Oriental titles to candidates who pass examinations in languages. In Sanskrit, Arabic, and Persian there are three standards of examination, and two in vernacular languages.

The Arts Faculty of the Madras University gives also the title of Licentiate in Teaching; the nature of the examination for this title is fully described in paragraph 129 of the last Review.

The Universities of Bombay, Calcutta, and the Punjab have been affiliated to the University of Oxford under the rules relating to Colonial and Indian Universities. Under these rules any person who has pursued during two full years a course of study prescribed by an affiliated University, and has passed all the examinations connected with that course, can obtain the degree of Bachelor of Arts after two years' residence, and is also exempted from appearing at some of the earlier examinations The University of Calcutta has also been recognised by the University of Cambridge, but the rules are somewhat different: the recognition is confined to certain colleges affiliated up to the B. A. standard, and specially recommended by the Senate, and only students who have passed the First Arts Examination in the first division, or the B. A. Examination with Honours, are exempted from one year of residence at Cambridge, provided they obtain the B. A. degree by one of the Tripos Examinations.

The following paragraphs show the most important changes that have been made during the last five years in the regulations of the different Universities, and give a brief account of the new University of Allahabad.

46. **The Madras University.**—In the year 1891-92 the Senate revised the Regulations for all the Arts examinations In the Matriculation examination the number of subjects in which a candidate is required to pass was increased from four to five by the separation of Science from History and Geography, and at the same time the number of marks required for a pass in each subject was raised, in some cases from 25 to 35 per cent. The practice of naming text-books in English was given up, and all candidates were required (unless specially exempted by the Syndicate) to attend a recognised high school for at least one year before the examination. This last change is calculated to improve the discipline of the schools. In the last five years about one-fourth of the candidates have appeared as private students, and the proportion of success among them was only one-third of what it was for students of recognised schools. No examination has yet been held under the revised rules. In the F. A. Examination the number of subjects has been reduced from six to five by the omission of Logic, and Physiography has been made alternative with Physiology: the passing limit has also been slightly raised in most of the subjects. The Madras University is the only Indian University that allows candidates for the B. A. degree to take up the subjects prescribed for that examination separately: the number of subjects is three, English, a classical or vernacular language, and a scientific subject. Under the old rules the first two were grouped together, and every candidate was obliged to pass in them before he could be examined in the third. Under the new rules the three subjects are all separate, and a candidate may take them in any order, but must pass in all before he is admitted to the degree For the M. A. degree the only change of importance is the requirement of an interval of two years between the B. A. and M. A.

The relations between the University and the affiliated colleges have been drawn much closer by a new set of rules for affiliation. These rules "empower the Syndicate to refuse to affiliate unless satisfied that the institution has sufficient accommodation and proper sanitary arrangements, an adequate supply of furniture and appliances, an efficient staff, and a satisfactory financial basis." In the case of first-grade colleges the order of affiliation names the particular subject or

subjects in which the college is allowed to present candidates at the B. A. Examination. Nine such optional subjects are prescribed, and the Presidency College is the only one that has been affiliated in all the subjects The former rules gave a college affiliated up to the B. A. standard the right to present candidates in any subject, though adequate instruction might be given in only one or two.

The number of colleges affiliated up to the B. A. standard is 14, as it was in 1887; Pachaiyappa's College and St. Aloysius' College, Mangalore, having taken the place of two that have been reduced to the second grade Three of the colleges are in Native States, one each in Hyderabad, Mysore, and Travancore The number of colleges affiliated up to the First Arts standard is 33, against 28 in 1887 Eight of these colleges are in Native States, and one in Ceylon, and therefore do not appear in the departmental returns

During the last five years 9,457 candidates passed the Matriculation Examination, 2,793 the F. A., 1,211 the B. A., and 21 the M. A., while 28 obtained the Licence in Teaching. The number of persons who obtain the M. A. degree is proportionately smaller than in any of the other Indian Universities.

47. The Bombay University.—The most important change that has been made during the period under review is the extension of the course of study for the B. A. Examination from three years to four. At the same time the number of subjects to be taken up was increased from three to four: English, a classical language, and one of seven alternative subjects were formerly required, but now History and Political Economy have been added to the list of compulsory subjects, while the course in the optional subjects has been revised, and in some cases extended. Roman History and General Jurisprudence and Roman Law have been included in the list of optional subjects, for the benefit of students proceeding to the LL.B degree. In all the other Indian Universities only three subjects are prescribed for the B. A. Examination, the general tendency of the changes introduced during recent years having been to encourage depth rather than breadth in the higher examinations of the University. In the M. A. Examination also specialisation has been carried out to a less extent in Bombay than elsewhere; English and a Classical Language are bracketed together as a single subject, History and Philosophy Physics and Chemistry; in other Universities these subjects are taken separately. As already stated, there are two examinations between the Matriculation and the B A.; the changes in the latter have been accompanied by corresponding changes in the earlier examinations. In the Previous Examination, which is taken at the end of the first year, the number of subjects has been reduced from six to four, by the omission of Logic and Natural Science. Logic has been added to the course for the Intermediate Examination, which comes at the end of the second year, and Physics has taken the place of the more advanced part of Mathematics. The introduction of a University School Final Examination as an alternative to the Matriculation Examination, but not leading up to the other University examinations, will be referred to in a subsequent section.

In January 1891 a Committee was appointed to consider the question of remodelling the Matriculation Examination, which a few days later was declared by the Vice-Chancellor in the annual Convocation speech to be "in the judgment of many who are well able to form a sound opinion on the point, a gigantic failure," and to fulfil "most imperfectly the one function for which it exists". The revised scheme adopted by the Syndicate on the report of the Committee was very vigorously discussed both in the Senate and in the public journals. The final discussion in the Senate took place in December 1891, when the meeting was dissolved by a vote of the Senate, and the scheme dropped.

The Act of Incorporation of the University was also the subject of repeated discussions in the Senate, and eventually a draft Bill for the reconstitution of the University was submitted to the Government of India; the main objects of the Bill were to make the University to some extent a self-governing body, and to do away with the clause of the Act which limits its functions to those of an examining body. The views of the Senate "secured the substantial adherence of the Bombay Government," but the Government of India refused to legislate in the matter. The privilege of electing annually two members of the Senate was, however, conferred upon the Masters of Arts and holders of equivalent degrees, and this privilege has since been extended to the University of Madras.

Six colleges (including one in the Baroda State) are affiliated up to the B. A. and B. Sc. standards, one to the B. A and First B. Sc., two to the B A. alone, two to the B. Sc alone (these are both professional colleges), and one is a second grade college affiliated up to the First B. A. In 1887 the number of institutions affiliated in Arts, either wholly or partially, was 12.

The total number of candidates who have passed the various examinations held during the last five years is as follows:— Matriculation, 4,143; Previous Examination, 1,041; First B. A., 673; B. A., 492; M. A., 18; First B. Sc., 24; B. Sc., 10. As in Madras, the number of Masters of Arts bears a very small proportion to the total number of graduates.

48. The Calcutta University.—During the period reviewed by Sir Alfred Croft the courses prescribed for all the Arts Examinations were revised; during the period now under review the attention of the Senate has been directed chiefly to the general rules of the University. Proposals were made for an alteration of the Act of Incorporation on the same lines as the draft Bill submitted by the Bombay University, and with the same result. The privilege of electing two Fellows had, however, been conferred upon the Masters of Arts and some graduates in other Faculties by His Excellency the Chancellor before these proposals were submitted. In consequence of the discovery of irregularities in the mode of registering the attendance of students in two of the affiliated colleges, the rules were made more precise on this point. Power was given to the Syndicate to strike off the list of schools allowed to send up candidates to the Entrance Examination those schools that showed year after year bad results This power has already been exercised by the Syndicate, and the Director of Public Instruction is of opinion that it will gradually root out the practice, now very common, of sending up candidates that are not sufficiently prepared for the examination. New rules regarding the affiliation of colleges and the recognition of schools, similar to those adopted by the Madras University, but less definite with respect to the subjects in which a college can be affiliated, were proposed in 1891-92, but were not finally adopted by the Senate till the end of 1892, and have not yet received the sanction of Government. The functions of the Boards of Studies were also more clearly defined. The most important changes in the regulations regarding examinations are those explained on p. 181 of the last Review. They properly belong to the present period, for they were not sanctioned by Government till 1888. In the F. A. Examination the only change was the addition of Chemistry to the list of subjects. The special feature of the B. A. Examination of this University is its division into two standards. Every candidate is required to take up three subjects, and in each subject he has the option of trying for a mere pass, or for honours. A separate honours list is published for each subject, arranged in order of merit, while those who elect to take the pass course are included in a general list arranged alphabetically. The subjects prescribed for the honour course are more extensive than those prescribed for the pass course, and different papers are given. The Allahabad University also gives honours at the B. A. Examination, but this is merely a question of marks, all the candidates taking the same papers. The

division of the B. A. course into a Literary branch and a Scientific branch was explained in the last Review; it will be referred to in a later paragraph.

The number of colleges affiliated up to the B. A. standard is stated in the University Calendar to be 55, and of those affiliated up to the F. A. standard 36. These numbers are very misleading, for the list of affiliated institutions has never been revised, so that it includes colleges that have long since ceased to exist, and others that have severed their connection with the Calcutta University in order to be affiliated to the newer Universities at Lahore and Allahabad. An examination of the list shows that of the 55 first grade colleges 14 have been closed, or are now only high schools, though it is possible that two of them may re-appear in the list of colleges; 9 are affiliated to Allahabad, and 2 to the Punjab University. The number of colleges that are likely to send up candidates to the B. A. Examination is therefore 30, and at the last examination, the number was 27. Of these 30 only 22 are in Bengal; 3 are in the Central Provinces, 2 in Ceylon, 1 in Burma, 1 in Indore, and 1 in Cooch Behar. Of the 36 second-grade colleges shown in the list only 16 have a right to be there, 14 are no longer colleges, though one or two may again be raised to that status, 5 have been transferred to the Allahabad University, and 1 to the Punjab University. Of those that remain 12 are in Bengal, 1 in the Central Provinces (not recognised as a college in the departmental returns), 1 in Ceylon, 1 in Assam, and 1 in Indore. Some of these have recently been affiliated, and have not yet sent up any candidates.

The number of candidates that have passed the various examinations in Arts during the last five years is:—Entrance, 11,022; First Arts, 4,271; B. A., 1,765; M. A., 299. The number of Masters of Arts is considerably more than three times the total number from all the other Universities of India taken together, though the other Universities supply more Bachelors of Arts.

49. The Punjab University.—The distinctive features of this University were fully described by Sir Alfred Croft; it is sufficient to state here that it is a teaching, as well as an examining, body, and that one of its chief functions is the improvement and extension of vernacular literature. When the University was first established a very high standard was fixed for all the examinations; in 1888-89 the question of standard was dealt with in a Resolution of the Government of the Punjab, from which the following is extracted:—"Now the Punjab University has fixed a higher percentage of pass marks in each subject than any other Indian University, the difference in the case of the higher examinations being enormous, whilst the standard of the question papers fluctuates in a manner which is unknown elsewhere. In fixing this high percentage the Senate, no doubt, adopted what seemed at the time to be the best course; and it was actuated apparently by the hope that such a measure would raise the standard of education throughout the Punjab. This hope has not been realised; the great majority of students fail in the examinations, and the examinations do not meet the objects with which they are held; whilst no advantage of any kind has been gained."

The Senate has not as yet devised any means of preventing the fluctuation of the standard of the question papers, but the percentage of pass marks at all the examinations has been reduced, and at the same time candidates are required to take up a smaller number of subjects In the Entrance Examination of both Faculties (Arts and Oriental Learning) the number of optional subjects has been reduced from two to one, the four compulsory subjects remaining unchanged. In the compulsory language the pass marks are still 33 per cent., but in the other subjects they have been reduced from 33 to 25, though 33 per cent. must be obtained in the aggregate. In the Intermediate Examinations the number of subjects has been reduced from 5 to 4, and a similar reduction made in the

pass marks in two of the subjects. In the B. A. and B. O. L. the number of subjects has been reduced from 4 to 3, but the only change in the standard is the change of the pass marks in one subject from 40 to 33 per cent. The B. A. Examination has been divided into two branches, as in Calcutta, but the separation of the Literary and Scientific subjects is less complete. In both courses English is compulsory; a classical language is compulsory in the A Course, and is an optional subject of the B Course, while Mathematics and Physical Science, one of which is compulsory in the B Course, are both included among the optional subjects of the A Course. History, Political Economy, and Philosophy are optional subjects in both courses. The greatest reduction in the standard has been made in the M. A. and M. O. L. Examinations; under the old rules a candidate was required to obtain 50 per cent. of the marks in each of the six papers, now he has to obtain 33 per cent. in each paper (40 in Composition) and 50 in the aggregate. This standard is still higher than that of Calcutta or Madras; the other Universities do not publish the scale of marks in the Calendar The degree of M. O. L. is now given only for proficiency in Sanskrit or Arabic; formerly a candidate could take up in place of these History, Mathematics, Philosophy, or Physical Science, so that the examination differed from the M. A. only in the fact that it was conducted in the vernacular instead of in English. The standard of the examinations in Oriental Languages remains unchanged, but in the Report for 1891-92 the Director writes: "In order to gain the Titles attached to these examinations, it has hitherto been necessary, in each case, to have passed in addition the Entrance or a Higher Examination in Arts; but during the year the Senate passed a Resolution making a knowledge of English up to the Middle School Standard alternative with the Entrance or Higher Examination, and reducing the standard of general knowledge required for all but the highest Titles from the Entrance to the Middle School Examination. The purpose of introducing the English alternative was professedly to improve the methods of teaching the Oriental Languages, and so to encourage the more enlightened study of these; but I cannot refrain from remarking that the change has dangers which are likely to operate in an entirely different way, by turning many of the present purely Oriental scholars into something less than ordinary Anglo-Vernacular students."

Among other changes introduced during the last five years may be mentioned the appointment of Boards of Studies, and the reconstitution of the Syndicate, or Executive Committee of the Senate. This body formerly consisted of all the Fellows of the University who happened to be in Lahore at the time of a meeting, but the rules have now been assimilated to those of the other Universities, each Faculty electing a certain number of members. The total number of members, exclusive of the Vice-Chancellor, is 18, the numbers in other Universities being—Allahabad 15, Bombay and Calcutta 10, Madras 8.

The Oriental College, Lahore, which is under the direct management of the University, is the only institution connected with the Oriental Faculty. Eight colleges prepare candidates for the Arts examinations, two of which are in the Native States of Patiala and Bahawalpur; the rules of the University do not provide for any formal affiliation of colleges. During the last five years 1,445 candidates have passed the Entrance Examination of the Arts Faculty, 343 the Intermediate Examination, 161 the B. A., and 9 the M. A. In the Oriental Faculty the numbers are much smaller: Entrance, 72; Intermediate, 26; B. O. L., 19, and M. O. L., 2. It has already been stated that no candidate has attempted to take the degree of Doctor in either Faculty, or to pass the examination for High Proficiency in Science.

56. The Allahabad University.—The Act to establish a University at Allahabad, Act No. XVIII of 1887, received the assent of the Governor General

in Council in September, 1887, and the University was inaugurated at a Convocation held in the following November. "The establishment of the University was the outcome of a discussion raised originally in the year 1870 in connection with the project for the constitution of Muir Central College and revived at the beginning of the year 1885. The final discussion demonstrated conclusively the need existing in these provinces for a University independent of that of Calcutta." The impetus given to collegiate education by the establishment of a local University is best shown by the fact that while in the five years 1882 to 1887 the number of students increased by 37 per cent., in the last five years the increase has been 172 per cent.

As might have been expected, the rules at first prescribed for the examinations were almost identical with those in force in the Calcutta University, with which the colleges had previously been connected The most important point of difference, the absence of a separate Honour Course in the B. A. Examination has already been mentioned. The course for the Intermediate Examination was made rather lighter than the Calcutta First Arts, which is considered by many to be too extensive; Logic and Physics were excluded, and Physiography put in their place. The curriculum for this Examination has since been revised, and the candidates have the option of taking up either a Literary or a Scientific course, as in the B. A. Examination. English, Mathematics, and Logic are common to the two courses; in the Literary course the other subjects are a classical language, and either History or a further course of Mathematics. On the Scientific side the remaining subjects are the same extended course in Mathematics, and Elementary Physics and Chemistry. No changes of importance have been made in the other examinations.

Five colleges, all in the North-Western Provinces, are affiliated up to the M. A. standard; 7 are affiliated up to the B. A. standard, of which 1 is in the Central Provinces, 1 in Ajmere, and 1 in Jeypur. Eight colleges are of the second grade, 2 of which are in Gwalior.

During the four years in which examinations have been held 2,909 candidates have passed the Entrance Examination, 760 the Intermediate Examination, 307 the B. A., and 40 the M. A The proportion of Masters of Arts to Bachelors of Arts is almost equal to that in Calcutta, and far above that of any other University in India.

51 **Financial Position of the Universities.**—The University of Madras a self-supporting institution; in the year 1891-92 the income amounted to R1,92,722, including R1,78,534 from examination fees, and the expenditure was R1,64,846; out of the general funds of the University a sum of R1,85,000 has been invested as a reserve fund. The fees for the Matriculation, First Arts, and B. A. Examinations are 20 per cent. higher than in the other Indian Universities. The total amount of private benefactions for the endowment of scholarships and prizes is much smaller than in Bombay and Calcutta, amounting to only R64,300.

The Bombay University is partly dependent upon Government, and receives an annual grant of R15,000. The total expenditure in 1891-92 was R1,17,572, and the income from fees R85,217. The question of raising the examination fees, in order to render the University self-supporting, is now before the Senate. The University is very richly endowed with scholarships, prizes, etc., the total amount of the investments for this purpose being about 5¼ lakhs. A nearly equal amount has also been given by private individuals towards the cost of the University building and library, one gentleman, Mr. Premchund Roychund, contributing 4 lakhs of rupees for this purpose.

The University of Calcutta receives no aid from Government; the income in 1891-92 amounted to R1,79,302, and the examination fees alone to R1,54,795;

the annual accounts show an expenditure of ₹1,05,710 during the year, but the expenditure for the year was nearly ₹1,50,000. The annual accounts are very misleading, as the fees for the Arts Examinations are received in December and January, while only a portion of the cost of the examinations, and this a variable one, is paid before the end of the official year. In order to render the accounts a better test of the financial position of the University it has recently been decided to count the financial year from the 1st July. On the 31st March 1892 the reserve fund amounted to ₹1,25,000. On the same date the total amount of the endowments for scholarships, etc., was rather more than 6¼ lakhs, including 3 lakhs for the Tagore Law Professorship, and ₹2,38,000 for the Premchund Roychund Studentships, established by the gentlemen whose donation to the Bombay University has just been mentioned.

The total expenditure of the Punjab University, exclusive of the cost of the Oriental College and the other teaching institutions connected with the University, was ₹65,375; this amount included ₹17,662 from provincial revenues, ₹1,512 from local funds, and ₹37,735 from fees. The endowments include ₹1,89,600 for the general purposes of the University, and ₹2,23,900 in special trusts.

For the Allahabad University the Director's report shows an expenditure of ₹30,132, all of which was met from fees. As yet the endowments are small, amounting to less than ₹15,000.

52. Arts Colleges, English.—The following table shows for each province the number of colleges of each class, and the number of students in them on the 31st March:—

Arts Colleges, English.

Province.	1886-87.								1891-92.							
	Under public management.		Under private management, Aided.		Under private management, Unaided.		Total.		Under public management.		Under private management, Aided.		Under private management, Unaided		Total.	
	Colleges	Students	Colleges.	Students.	Colleges.	Students.	Colleges	Students	Colleges	Students	Colleges	Students	Colleges	Students	Colleges	Students.
Madras	8	955	19	1,753	4	271	31	2,979	7	1,029	24	2,569	4	220	35	3,818
Bombay	5	509	4	446	..	...	9	955	4	476	4	613	1	243	9	1,332
Bengal	13	1,085	7	795	7	1,335	27	3,215	12	1,668	7	1,097	15	2,460	34	5,225
North-Western Provinces and Oudh.	3	212	4	237	5	29	12	478	3	498	4	659	5	154	12	1,311
Punjab	1	248	1	55	1	16	3	319	2	162	3	211	1	89	6	462
Central Provinces	1	47	2	53	...	...	3	100	1	88	2	144	...	...	3	232
Lower Burma	1	14	...	...	...	...	1	14	1	44	...	...	...	...	1	44
Total	32	3,070	37	3,339	17	1,651	86	8,060	30	3,965	44	5,293	26	3,166	100	12,424

The total number of colleges increased by 14, or 16·3 per cent. During the preceding five years the increase was 23 colleges, or 36·5 per cent. This diminution in the rate of increase was more than compensated by the increased size of the colleges, for while in 1887 the average number of students in each college was 94, in 1892 the number was 124. The total increase in the number of students during the last five years was 4,364, or 54·14 per cent., against an increase of 2,648, or 48·93 per cent., during the previous five years.

The increase in the number of students is common to all the provinces of India, but the number of colleges has increased in only three provinces. In Bengal 7 colleges have been added to the list, in Madras 4, and in the Punjab 3. The following is a brief summary of the changes under this head:—

In Madras 3 out of the 4 remaining second-grade colleges under the management of the Department were closed; 2 had been closed in 1885 and 1886 and all of these have now been replaced by institutions under private management. Two new colleges have been opened at Palghat and Tellicherry under municipal management. Two colleges, Pachaiyappa's and the American Lutheran Mission College at Guntur, which were unaided in 1887, are now aided; the Native College at Madura, the Town College at Cuddalore, and the Wardlaw College at Bellary are new aided colleges occupying ground previously occupied by Government colleges. A college department has been added to St. Michael's, Coimbatore, and the college classes of the Tranquebar Lutheran Mission College have been closed. Two unaided colleges have taken the place of those that are named above as having received grants; these are the Pasumalai College, Madura, and the Native College at Berhampore, which is the Government college transferred to native management.

In Bombay the colleges are the same as in 1887, but the Fergusson College is now self-supporting, and the Gujarat College has been transferred from departmental to private management. The latter change was mentioned in the last Review, though it did not come into effect till 1887-88.

In Bengal the only changes under the head of Government colleges are the two mentioned in the last Review. The number of aided colleges is unchanged, but the Uttarpara College has taken the place of the Doveton College, Calcutta. The former was previously a Government high school, but was transferred to private management when the college classes were opened. The increase of 8 in the number of unaided colleges is thus accounted for:—5 new colleges were opened, the Tej Narain College, Bhagalpur, the Bangabasi College, Calcutta, the Rajchandra and Brajamohan Colleges at Barisal, and the Bihar National College, Bankipore. Besides these a small college department was added to the girls' side of La Martinière, Calcutta, the college classes of the Bishop's College were revived, and the Government college at Berhampore was transferred to private management.

In the North-Western Provinces, though the number of institutions of each class remains the same, the Ramsay College, Almora, and the Girls' High School, Allahabad, have dropped out of the list; their places have been taken by St. George's Mussoorie, and the Christian College, Lucknow. The first three are all high schools that sometimes have, and somtimes have not, college classes, but the last is likely to be a permanent institution.

In the Punjab the new college under public management is the Municipal Board College at Amritsar. The Lahore Mission College was returned as unaided in 1886-87, but it received a grant in the following year. The Scotch Mission College at Sialkot is a new institution, and receives aid from district and municipal funds. The only unaided institution is the Daya Nand Anglo-Vedic

College at Lahore, which is supported by subscriptions raised by the Arya Samaj: the college classes were opened in 1888, and now contain 89 students.

In the Central Provinces and in Burma the colleges are the same as in 1886. In Berar, Coorg, and Assam, there were no colleges in the returns for 1892, but in the latter province the unaided Murarichand High School, Sylhet, was affiliated to the Calcutta University up to the First Arts standard in December 1891, and college classes were opened in the following June.

53. Attendance in Arts Colleges.—It has already been stated that the increase in the number of students extends to all the provinces in which Arts Colleges are found, but the following table shows that the increase is very unequally distributed, and that in some provinces the rate of increase varies very much from year to year.

Province.	Number of Students in Arts Colleges on the 31st March						Increase per cent.	Number of boys of school-going age among whom one was reading in an Arts College in	
	1887	1888	1889.	1890.	1891.	1892		1887.	1892.
Lower Burma . . .	14	30	27	23	25	44	214	21,332	8,794
North-Western Provinces .	478	637	699	931	1,194	1,311	174·3	7,205	2,781
Central Provinces . .	100	134	153	152	212	232	132	8,741	4,207
Bengal	3,215	4,494	5,168	4,882	5,232	5,225	62·5	1,584	1,050
Punjab	319	305	322	358	389	462	44 8	4,801	3,654
Bombay	955	1,020	1,179	1,229	1,289	1,332	39·5	1,877	1,574
Madras	2,979	3,036	3,069	3,043	3,205	3,818	28 2	769	693
Total .	8,060	9,656	10,617	10,618	11,546	12,424	54·14	1,975	1,432

The last three columns have been added to the table in order to admit of a comparison between the progress made during the five years and the previous extent of collegiate education in the different provinces. As might be expected, the rate of increase is greatest in those provinces in which University education had made least progress before 1887, and the order of the figures indicating the rate of increase differs from the order of the figures in the succeeding column only with respect to the North-Western Provinces and Bengal, in both of which provinces the increase is relatively greater than might have been expected. In the North-Western Provinces this is due to the establishment of the University of Allahabad; the first Matriculation Examination of this University was held in the beginning of 1889, but too late for the successful candidates to enter a college before the 31st March of that year; the following year showed an increase of 232 in the number of students in the colleges, or 1 more than the total increase for the two preceding years; the next year the increase amounted to 263 students, and to 117 in 1891-92. The high rate of increase in Bengal can also be accounted for: over 60 per cent. of the total increase occurred in a single year, 1887-88; at the Entrance Examination of 1886 only 913 candidates were successful, or 29 per cent., but in the following year the standard of the examination was lowered, so that the number of passes rose to 2,409 or 69 per cent., and the number of first-year students in the colleges of Bengal rose from 831 in March

1887 to 2,008 in March 1888. The unexpected success of so many students in 1887 led to a large increase in the number of candidates at the following examinations, so that the percentage of passes fell to 46 in 1888, and to 25 in 1889. The results of the subsequent examinations show that a very large proportion of the successful students of 1887, the "Jubilee year" as it is generally called in this connection, were not fully prepared to enter upon a course of collegiate study; at the First Arts Examination of 1889 the number of candidates from colleges in Bengal was nearly twice as great as in the previous year, but the percentage of passes fell from 39 to 28, and two years later the percentages of passes at the B. A. Examination fell from 41 to 27, and the actual number of passes from 411 to 224. In Madras also a large proportion (over 70 per cent.) of the total increase occurred in a single year, 1891-92, and this also appears to indicate a reduction of the standard of the Matriculation Examination, though this explanation is not given in the Director's report. The number of private students who appeared at the examination of 1891 was unusually large, because the University had made new bye-laws, the effect of which would be to exclude such candidates from future examinations; it is natural to assume that a large proportion of the increase in the number of private students consisted of boys who would, but for the new bye-laws, have appeared at the examination a year later, and therefore were less prepared, but the percentage of passes among these students rose from 8 to 12; it is difficult to account for this rise except upon the assumption that the standard of passing was lower than in previous years.

The increase in the average strength of the colleges referred to in the last paragraph is common to all classes of institutions, but is most marked in those under public management; in these the average number of students has risen from 96 to 132; in aided colleges the increase is from 90 to 120, and in unaided colleges from 97 to 122. In the Resolution on the last Review the Government of India stated that "an accompaniment to the gradual substitution of aided for Government schools should be a contraction in the number of pupils educated in the institutions still maintained by Government, more especially the High Schools and Colleges." Though there has been no contraction in the number of pupils in Government colleges, the rate of increase is much smaller than in other classes of institutions, being only 22·1 per cent. against 73 per cent.

The average daily attendance calculated on the average monthly roll number was 86 per cent. in colleges under public management in 1891-92, 88 in aided colleges, and 62 in unaided colleges, against 89, 88, and 82 respectively in 1886-87. The decrease is chiefly in Bengal, where it appears to be due to a change in the University regulations, under which it is now necessary to register the number of students present at each lecture, while under the old rules the number present each day was recorded.

It may be remarked here that the number of students on the rolls of the colleges on the 31st March does not give a satisfactory estimate of the relative strength of the colleges of different provinces. A comparison of the Bengal returns for 1891-92 with those of the preceding year shows a decrease of 7 in the roll number at the end of the year, but an increase of 420 in the average monthly roll number. The Arts Examinations are held in February, and candidates who fail at one examination are allowed to appear at the next examination after six months' study in a college; this period of study must be completed between June and February, and therefore the names of these students do not appear on the rolls at the end of March. In Madras and Bombay the examinations are held in November and December, and the students are enrolled for the new session before the end of March. In these two provinces the number on the rolls at the close of the official year 1891-92 exceeded the monthly average by 620 and 71 respectively, while in Bengal the latter number was 358

more than the former; in other provinces the two numbers are nearly equal. The best time for a comparison of the colleges affiliated to the different Universities would be between August and November, when all would be at their full strength.

54. Classification of Arts Colleges according to Management and Grade.—Colleges affiliated to a University up to the B.A. standard are classed as first-grade, and those affiliated to a lower standard as second-grade colleges. A few colleges have been affiliated up to the B.A. standard, but have no B.A. classes, and no means of teaching such classes; in the following table these institutions are treated as of the second-grade:—

Management.	1886-87.		1891-92.	
	First grade.	Second grade.	First grade.	Second grade.
Government	20	9	19	4
Native States	1	1	1	1
Municipal	...	1	...	5
Aided	19	18	25	19
Unaided	5	12	13	13
TOTAL	45	41	58	42

The loss of one first-grade Government college is due to the transfer of the Gujarat College to the list of aided institutions. Five second-grade Government colleges have disappeared from the list, of which 3 have been closed, 1 is now under municipal management, and 1 is unaided; one of the 4 remaining colleges is shown in the returns for 1886-87 as maintained from local funds, but the management was in the hands of the Department. Of the 5 municipal colleges 3 are in Madras, and 1 each in Bengal and the Punjab. Among institutions under private management there have been several transfers from the second grade to the first, so that the number of first-grade colleges has increased by 14, while that of second-grade colleges has increased by 2 only.

The increase of 16 colleges under private management may also be distributed as follows:— 11 new colleges have been established by native enterprise, with or without aid from Government; 2 Government colleges have been transferred to native management, and one native institution has ceased to be classed as a college: one missionary college has been closed, and 5 new ones have been opened, including one in which college classes formerly existed: 2 colleges for Europeans dropped out of the list, but 2 others took their place. The total number of colleges managed by missionary and other Christian societies is now 33, of which 20 are of the first grade, and 13 of the second grade; about half of these are in the Madras Presidency.

The following is a list of some of the most important colleges in India, with the number of students on the rolls on the 31st March 1892:—

Government Colleges—	
Presidency College, Calcutta	428
Presidency College, Madras	371
Muir Central College, Allahabad	282
Elphinstone College, Bombay	265
Missionary Colleges—	
Christian College, Madras	767
St. Joseph's College, Trichinopoly	389
General Assembly's Institution, Calcutta	381
Free Church Institution, Calcutta	319
Native Colleges—	
Metropolitan Institution, Calcutta	508
City College, Calcutta	454
Ripon College, Calcutta	447
Fergusson College, Poona	243

55. Expenditure in Arts Colleges, English.—The next table shows the total expenditure from different sources on Arts colleges in each province in 1886-87 and in 1891-92:—

Expenditure in Arts Colleges, English.

Province.	1886-87.							1891-92.						
	From Provincial Revenues.			From District and Municipal Funds.	From fees.	From other sources.	Total.	From Provincial Revenues.			From District and Municipal Funds.	From fees.	From other sources.	Total.
	In Colleges under public management.	In Aided Colleges.	Total.					In Colleges under public management.	In Aided Colleges.	Total.				
	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Madras	1,57,481	54,640	2,12,121	—1,286	1,46,978	1,14,713	4,72,526	1,61,562	79,547	2,41,109	...	1,90,527	1,22,618	5,54,254
Bombay	98,895	22,000	1,20,895	4,494	57,698	66,247	2,49,334	94,221	43,132	1,37,353	13,524	87,281	76,142	3,14,300
Bengal	2,83,116	26,855	3,09,971	...	1,33,896	1,01,104	5,44,971	2,67,845	24,841	2,92,686	78	2,75,505	1,38,836	7,07,105
North-Western Provinces and Oudh	71,424	30,264	1,01,688	10,570	15,877	70,459	1,98,594	54,976	38,126	93,102	9,742	46,000	86,286	2,35,130
Punjab	38,187	5,400	43,587	1,200	12,044	12,581	69,412	38,349	9,000	47,349	5,759	25,052	25,826	1,03,986
Central Provinces	9,948	4,820	14,768	6,300	2,021	15,143	38,232	14,672	3,293	17,965	1,500	4,638	20,650	44,753
Lower Burma	33,193	...	33,193	...	460	...	33,653	40,291	...	40,291	...	2,490	...	42,781
Total	6,92,244	1,43,979	8,36,223	21,278	3,68,974	3,80,247	16,06,722	6,71,916	1,97,939	8,69,855	30,603	6,31,493	4,70,358	20,02,309

The total expenditure from all sources has thus increased by R3,95,587, or 24·6 per cent.; owing to the large increase in the average strength of the colleges the expenditure has increased in a much smaller proportion than the number of students, and the average cost of educating a student has fallen from R211 to R166. The following table shows the average cost in both years for different classes of institutions:—

	1886-87.	1891-92.
	R	R
Departmental	322	269
Municipal	121	101
Native States	406	435
Aided	186	160
Unaided	102	58

The decrease in cost is common to all classes of institutions, except those in Native States. The large decrease in the case of unaided colleges is partly due to the incompleteness of the returns for 1886-87; some of the largest, and therefore the cheapest, colleges in Bengal did not furnish statements of expenditure, so that the figure given is probably rather too high; in the tables attached to the last Review no allowance was made for the omission of the expenditure on these colleges, and the average given is only R47, which is much too low.

The total expenditure has increased in all provinces, the greatest increase being in Bengal, where it amounts to R 1,62, 000, or about 30 per cent.; the Punjab, however, shows a proportionately larger increase, amounting to nearly 50 per cent.

56. Expenditure from Public Funds.—The total expenditure from provincial revenues increased by R33,632, or 4 per cent.; in the colleges under the direct control of the Department the expenditure decreased by R21,806, or 3·2 per cent.; in other colleges under public management there was an increase of R1,478, or 50 per cent., and in aided colleges an increase of R53,960, or 37·5 per cent. In Madras the cost of the departmental colleges has increased, though their number has fallen from 7 to 4; this is due to the appointment of additional Professors in the Presidency College, in order to provide instruction in all the subjects that can be taken up by candidates for the B. A. degree; in some of these subjects no other college has been affiliated to the University. The increase of nearly R25,000 in the grants to aided colleges is chiefly due to the increase of 5 in their number, but a large addition of more than R6,000 has been made to the grant to Pachaiyappa's College, which has been raised from the second to the first grade. In Bombay the expenditure on Government colleges has slightly decreased, owing to the transfer of the Gujarat College to the list of aided institutions; this transfer has not resulted in any saving of public funds, for the grant paid in 1891-92 exceeded the net cost in 1886-87 by R3,566; the grants to the other aided colleges have been increased, and the total provincial expenditure in them has nearly doubled. In Bengal the expenditure on Government colleges has decreased by R15,271, which is rather more than the net cost to Government in 1886-87 of the two colleges that have been transferred to other management; the Presidency College shows an increase of over R24,000, the whole of which occurred during the last year of the quinquennium, and was due to the shifting of officers: the cost of this college in 1891-92 was R1,08,968, which is higher than the cost of any other college in India, though the cost of the Madras Presidency College in 1890-91 fell short of this amount by only R823. The expenditure on aided colleges has slightly decreased, owing to the withdrawal of the grant of R250 a month to the Doveton College; the new college that has taken its place in the list of aided institutions receives no aid beyond the estimated value of the services of officers transferred with the institution. In the

North-Western Provinces there is a large decrease in the cost of Government institutions, a part of which is due to the increase in the amount of students fees, and part is of a temporary character, due to the absence of officers on furlough; the grants to the aided colleges have been raised in consequence of the large increase in the number of students. The cost of the Lahore Government College has remained stationary; the additional college under public management, and one of the two colleges added to the list of aided institutions, receive no grants from provincial revenues. The cost of the Jubbulpore College, the only Government institution in the Central Provinces, appears to have increased by nearly 50 per cent, but it is not clear how much of this is real; the salaries of the members of the staff are distributed between the college and the attached school according to the amount of work done in each; taking the two together the increase is reduced to R430. There is a decrease in the expenditure on aided institutions, the grant to the Morris College having been withdrawn in 1888. The Rangoon Government College is a very expensive institution, on account of the small number of pupils, and during the five years the cost to Government increased by R7,000. The annual cost to Government of educating a student in the principal college of each province is shown below:—

		R
Madras	Presidency College	276
Bombay	Elphinstone College	243
Bengal	Presidency College	223
North-Western Provinces	Muir Central College	99
Punjab	Lahore Government College	295
Central Provinces	Jubbulpore College	165
Burma	Rangoon College	895

The average cost to Government for each pupil in aided colleges varies considerably in different provinces; the figures for 1886-87 and 1891-92 are given below, the nearest rupee being taken:—

	1886-87.	1891-92.
Madras	36	37
Bombay	50	74
Bengal	35	21
North-Western Provinces	101	56
Punjab	95	75
Central Provinces	93	25
India	47	42

The total expenditure of district boards on Arts colleges was R6,759 in 1886-87, and R6,796 in 1891-92; in the former year the Sind College received a grant of R1,494, which has since been raised to R2,624; the rest of the expenditure was incurred in the North-Western Provinces, and included the cost of the college department of the Fyzabad Zila School, which is managed by the Department, but receives no aid from provincial revenues: in 1891-92 a small grant of R350 was made to the Scotch Mission College, Sialkot, which also received a grant of R300 from the municipality.

The total expenditure of municipal boards was R14,519 in 1886-87, and R21,523 in 1891-92, after deducting in each case the excess of income over expenditure in colleges managed by municipalities in Madras, amounting to R1,286 in the former year, and to R2,284 in the latter; in two out of the three colleges the grant given by the Department is more than sufficient, when added to the fees, to cover the total expenditure, and the third cost the local municipality only R83. The Midnapore College in Bengal is very nearly self-supporting, the total cost to the municipality being only R78. The college managed by the Amritsar Municipal Board was maintained at an expense of R3,909 in 1891-92

Municipalities also give grants to the Gujarat College (₹3,000), the Sind College (₹7,900), St. Stephen's College, Delhi (₹1,200), the Morris College, Nagpur (₹1,500), and to some colleges in the North-Western Provinces.

57. **Fees in Arts Colleges.**—Referring again to the table in para. 55, it appears that the total amount of the expenditure from fees has risen by ₹2,62,519, or 71·1 per cent. In 1886-87 the fees amounted to rather less than 23 per cent. of the entire expenditure, but in five years the proportion rose to 31½ per cent. The increase is in a great measure due to the rise in the number of pupils, but that this is not the only cause is shown by the following table, which gives the average fee paid by each pupil in the different classes of colleges :—

Province.	1886 87.			1891-92.		
	Colleges under public management.	Aided Colleges.	Unaided Colleges.	Colleges under public management.	Aided Colleges.	Unaided Colleges.
	₹	₹	₹	₹	₹	₹
Madras . . .	60·2	54·1	76·6	63 2	58·9	[illegible]
Bombay . . .	85·1	45·2	28·3	97·9	71·1	34·7
Bengal	77·7	51·0	(a) 17·3	82·4	48	(b) 26·1
North-Western Provinces and Oudh.	39 2	27·1	24·1	43·0	30 4	30·7
Punjab	36·3	44·5	15·1	76·7	54·5	23·9
Central Provinces . .	24·8	17·9	...	29 8	14 8	...
Burma	27 1	...	...	55·3	...	...
Average for India .	65.1	49·2	30 4	72·6	52 6	28 2

(a) Excluding La Martinière, Metropolitan, City, and Albert Colleges at Calcutta, for which the returns of cost are not available.
(b) Excluding La Martinière and Bishop's College at Calcutta, which have not furnished money returns.

Before comparing the figures for 1886-87 and 1891-92 it is necessary to say a few words regarding some great discrepancies between the figures for the former year and those given for 1885-86 in paragraph 134 of the last Review. In the unaided colleges of Madras the difference amounts to ₹32·7, though there was no change in the colleges shown as unaided, and the roll number increased by 4 only ; the introduction of a new school-fee notification in January 1887 is insufficient to account for such a large increase, and it is probable that there was a large difference between the income from fees and the amount shown as expended from that source. In Bombay the average for aided colleges fell from ₹65·2 to ₹45·2 owing to the inclusion of the Fergusson College in 1886·87 ; if the returns of expenditure in this institution are correct, the expenditure from fees for the year amounted to only ₹105, with an average of 108 students on the roll, so that each student paid little more than an anna a month for a collegiate education ; judging from the returns for other years, it is probable that the income from fees was really very much larger, and that the Government grant of ₹3,000 was more than the institution needed ; it was withdrawn in 1888-89. In the Rangoon College the fees were raised from ₹4 to ₹5 a month in 1886-87, but with a decrease of only four in the attendance, the total expenditure from fees fell from ₹1,012 to ₹460 ; this appears to indicate either an error in the returns or some irregularity in the collection of fees. For unaided colleges in Bengal no figures were given in 1885-86, and those for the following year are not of much value, for some of the largest institutions failed to submit returns of expenditure ; the average given is approximately correct for the remaining colleges.

Coming now to the figures in the table, it appears that in every province the average fee in departmental institutions has increased : Bombay still heads

the list, the yearly fee being R120 in the Elphinstone College, and R80 in the Deccan College. Bengal comes next, but the fees vary much more, the highest being R144 in the Presidency College, and the lowest R36 in some of the small mofussil colleges, and R24 in the Calcutta Madrasa. In the Punjab the average rate of fee has more than doubled, and is still increasing; after the 1st April 1893 the fees in colleges under public management will be R144 in the M.A. classes, R120 in the B.A., and R96 in the junior classes. In 1886 the fee rate in the Presidency College, Madras, was R62, and in 1888 the smallness of this amount in comparison with the fees charged in Calcutta and Bombay was brought to the notice of the Local Government; in his report on this subject the Director stated that from January 1887 the fees had been raised to R82 for the B.A. and R69 for the F.A. classes, these rates being about 15 per cent. higher than those fixed for other colleges, departmental or aided. Even these rates are very much lower than those of Calcutta and Bombay, and in explanation of this it was pointed out that in those colleges instruction was given up to the M.A. standard, while in Madras the highest standard was that of the B.A. Examination; this argument, however, lost much of its force when the rates were revised five years later, for the fee for the M.A. class was then fixed at R46, the Committee appointed for the purpose having recommended that it should be equal to the fee paid by a student taking up one of the optional branches of the B.A. Examination. It was also pointed out that the proportion of fee-receipts to total cost in Government colleges was higher in Madras than in either of the other presidencies, but this, though true at the time regarding all Government colleges taken together (it will be shown in the next paragraph that this is no longer the case), was not true of the colleges specially referred to, those in the presidency towns; in the Madras college the proportion in 1887-88 was 16·9 per cent., in Bombay it was 22·5 per cent., and in Calcutta more than 38 per cent. For 1891-92 the figures are 20, 26·1, and 38·8 respectively. A more forcible argument is contained in the statement that college students are, as a class, poorer in Madras than in the other presidency towns, and that the difference of 15 per cent. in the fees above referred to had caused the Presidency College to attract less than its proper share of students, and had forced many non-Christian boys to enter the Christian College. The returns for later years show that the college has not suffered much from competition with aided colleges, for the number of students has increased during the last five years from 234 to 371, while the two aided colleges in Madras have increased from 746 to 962. There is greater risk of a serious loss of students under the fee notification of 1892, which leaves the managers of aided schools and colleges free to charge whatever fees they please; but experience shows that a thoroughly well equipped Government college can hold its ground in spite of higher fees, the only college in India that appears to have suffered from this cause being the Deccan College at Poona, which has lost 43 students during the last five years, while the unaided Fergusson College has gained 149, the average fee in the latter being R31 against R83 in the former. The Presidency College, Calcutta, charging R12 a month, has gained 170 students during the same period, though it has to compete with colleges charging only R3 a month. In the North-Western Provinces the average fee is much lower, being only R35, and the highest rate is R72 in the B.A. and M.A. classes of the Muir Central College, while in Queen's College, Benares, the fee in the F.A. classes is only R36. In the Jubbulpore College the fees have recently been raised from R27 to R30; this is the lowest rate charged in any Government college in India, except those intended for special classes of the community.

In aided colleges the average rate of fees is everywhere lower than in Government colleges, and here again Bombay heads the list with an average of

R71·1. Madras has a high average, because until the end of 1891 a minimum rate of fee was prescribed as a condition of aid. This also accounts for the high average in the Punjab, where all colleges are required to charge fees at a rate not less than 75 per cent. of the Government rate. In the Central Provinces the minimum is fixed at 80 per cent, but the Morris College, which is aided from municipal funds, has not yet been brought under the rule. In Bengal and the North-Western Provinces managers have perfect liberty in the matter of fees, and the rates vary very much; in Bengal the average rate has fallen from R51 to R48.

In unaided colleges the returns are not very trustworthy, and it is probable that the reduction of the average rate for the whole of India from R30·4 to R28·2 is unreal.

58. Proportion of Fee-recepts to Total Expenditure.—The next table shows what percentage of the total expenditure in Government, aided, and unaided colleges was met from the fee income :—

Province.	1886-87.			1891-92.		
	Government Colleges.	Aided Colleges.	Unaided Colleges including Native States Colleges.	Government Colleges.	Aided Colleges.	Unaided Colleges including Native States Colleges.
Madras . . .	24·4	34·9	45·0	22·6	41·3	31·0
Bombay . . .	22·3	33·1	6·9	23·8	32·0	28·2
Bengal	22·5	28·0	* 41·5	34·9	36·0	† 57·7
North-Western Provinces and Oudh.	10·4	6·7	3·5	26·8	16·2	13·6
Punjab	19·5	14·9	5·1	21·5	24·3	55·9
Central Provinces . .	7·5	3·9	...	12·7	8·2	...
Burma	1·3	...	...	5·8	...	...
Average in India .	20·7	26·4	23·3	27·6	32·8	42·6

* No returns of expenditure were received from La Martinière, Metropolitan, City, and Albert Colleges, Calcutta.
† La Martinière and Bishop's College, Calcutta, have not furnished money returns.

In the preceding paragraph it has been shown that in Government colleges the average rate of fee is about one-third higher than in aided colleges, but it appears from General Table II that the average cost of educating a pupil in a Government college exceeds the cost in an aided college by one-half, the figures being R245 and R161, and hence the fees in Government colleges form a smaller proportion of the total cost. The greater cost of Government colleges is a necessary consequence of their character; they may be divided into two classes, colleges maintained in large towns, to serve as models for other colleges to work up to, and colleges in places where the number of students is not large enough to support an institution under private management. In colleges of the former class the staff of professors is much larger, and their salaries higher, than in aided or unaided colleges, but in consequence of the larger number of students these are often less expensive institutions than the small colleges kept up by Government in other places.

Madras is the only province that shows a decrease in the percentage for Government colleges; the total cost of these institutions has remained practically stationary, while in consequence of the loss of about a hundred students the fee-receipts have decreased by about R4,000. Bengal shows a very

large increase; owing to an increase of over 500 in the number of students the income from fees has risen by ₹64,000, while the total expenditure has risen by only ₹44,000. The North-Western Provinces show a still greater increase; the number of students has risen from 200 to nearly 500, and the fees have risen in the same proportion, while the total expenditure has remained unchanged. In these provinces the proportion has also largely increased in aided colleges, and from the same cause. In the Punjab the increase in aided colleges is due to the higher fee rates now charged. The extremely low percentage shown in some cases for unaided colleges is probably due to the inclusion of small college departments attached to high schools; some of these departments contain only one or two students, and the fees realised are very small in comparison with the expenditure.

59. **Expenditure from other Sources.**—The principal items coming under this head are subscriptions, endowments, and the contributions of missionary societies. In 1891-92 subscriptions amounted to ₹47,929 in aided colleges, and to ₹16,079 in unaided colleges; in institutions under public management there were no subscriptions. From endowments the Elphinstone College, Bombay, received ₹16,000, and the Rajshahi College in Bengal ₹11,000; several other Government colleges received smaller amounts, the total for all Government colleges being ₹37,001. About one-third of the total cost of aided colleges (₹2,57,035) was met from endowments and other sources, the greater part of this amount being probably missionary funds. In unaided colleges the expenditure from these sources was ₹79,954, or rather more than 40 per cent. of the entire cost.

60. **Results of University Examinations in Arts.**—In consequence of great variations in the standard of the examinations, which unfortunately are very common in the Indian Universities, the progress made during the last five years cannot be accurately estimated by comparing the number of candidates who passed the examinations in 1891-92 with the corresponding figures for 1886-87. This element of uncertainty would be to a great extent eliminated by taking the total number of passes in successive periods of five years, but the materials for this are not available, and therefore in the following tables the number of passes is shown for each year from 1886-87 to 1891-92. The figures are nominally for the different provinces of India, but in Madras and Bombay students of extra-provincial institutions are included in the returns. For Bombay the difference is very slight, for the Baroda College is the only extra-provincial college affiliated to the University, but in Madras the list of affiliated institutions includes 3 first-grade, and 9 second-grade colleges, which are not included in the departmental returns; these colleges in 1891-92 furnished about 40 of the successful candidates at the B. A. Examination, and about 140 of those who passed the lower examinations. In the other Provinces the students of such institutions are excluded from the returns.

	1886-87.	1887-88.	1888-89.	1889-90.	1890-91.	1891-92.
M.A. Examination.						
Madras	3	4	2	3	6	6
Bombay	8	3	4	3	2	6
Bengal	63	43	58	62	57	46
North-Western Provinces	6	12	8	12	11	15
Punjab	....	1	2	1	3	2
Central Provinces	1	..	...	2	...	4
TOTAL	81	63	74	83	79	79

B. A. Examination.

Madras	158	201	255	182	257	316
Bombay	79	77	78	105	103	129
Bengal	369	323	366	399	231	273
North-Western Provinces	66	40	65	46	92	112
Punjab	24	28	9	34	37	45
Central Provinces	13	13	17	16	15	19
Burma	1	1	3	2	1	4
TOTAL	710	683	793	784	736	898

B.Sc. Examination.

Bombay	2	2	1	2	2	3

Examinations intermediate between Matriculation and the Final Examinations for the Degrees of B.A. and B.Sc.

Madras	937	752	828	659	1,027	970
Bombay	289	224	392	375	435	314
Bengal	716	481	629	996	693	1,011
North-Western Provinces	96	64	162	219	204	161
Punjab	34	50	49	122	87	164
Central Provinces	27	23	41	46	39	59
Burma	6	4	5	6	5	11
TOTAL	2,105	1,598	2,106	2,423	2,490	2,690

From the first table it appears that the number of candidates who obtain the degree of M.A. has remained nearly stationary since 1886-87, though there is a considerable advance upon the number for 1885-86, when the total was only 46. Of the 378 candidates who passed the examination during the last five years 266, or 70 per cent., belonged to Bengal, and rather more than half the remainder to the North-Western Provinces, while Madras and Bombay supplied only 21 and 18 Masters of Arts, respectively. The figures show that about 1 graduate out of 10 obtains the higher degree of M.A, while the number of graduates who go through the further course of study for that degree is about twice as great.

The total increase in the number of Bachelors of Arts amounts to 26 per cent.; in Madras the number has doubled, and all other provinces show a large increase except Bengal, where the number has fallen by a quarter.

This decrease cannot be accounted for by the establishment of the Allahabad University, since the figures refer only to colleges in Bengal, and these have never contained a large number of students from the North-Western Provinces

The fall in the number of passes has accompanied a large increase, from 688 to 1,170, in the number of candidates, and the percentage of success has gone down from 54 to 24, while in the examination of the current year the percentage is even lower. It appears probable that the standard of the examination has been raised, while in consequence of the lowering of the Entrance standard a large proportion of the students receive at school an elementary education insufficient to prepare them to benefit by the instruction given in the colleges.

In the last table the results of several examinations have been grouped together; for Madras it includes the Language branch of the B.A. Examination, which till recently was virtually a preliminary examination, since a candidate was obliged to pass it before appearing at the examination for the optional branch; in Bombay it includes the two examinations leading up to the B. A. degree, and also the First B.Sc. Examination; in the other provinces it includes only one examination, the First Arts, or Intermediate Examination. Taking all these examinations together the number of passes has increased in the same proportion as at the B.A. Examination, 28 per cent.; every province shares in this increase, but it is greatest in the Punjab, where the number is now nearly five times as great as it was five years ago. The increase in the number of candidates is much greater, and amounts to nearly 46 per cent.

61. Proportion of Graduates to Matriculated Students.—In the Universities of Oxford and Cambridge it is probable that at least 60 per cent. of the students who matriculate ultimately obtain the degree of B.A.; taking all the Indian Universities together the proportion is probably below 20 per cent. It would be interesting to ascertain the proportion stopping short at each stage of the University course, but unfortunately neither the departmental returns nor the University records furnish sufficient data for a complete investigation of the question. In 1891 the Madras Director obtained special returns from the heads of colleges, from which it appeared that about 20 per cent. of the candidates who passed the Matriculation Examination did not proceed any further with their studies, and that about 10 per cent. of those who passed the First Arts Examination did not attempt to obtain the B.A. degree. The figures given in the Bengal returns show that the percentage of students stopping short at the Matriculation Examination is about the same, but apparently about 15 or 20 per cent. fail to proceed beyond the First Arts standard. When the number of passes at the Matriculation increases or decreases very much, the number of students entering a college increases or decreases in a much smaller proportion, which appears to indicate that the boys who do not go any farther than the Matriculation Examination belong chiefly to the class of weak students, who could not derive much profit from study in a college.

62. Comparative Popularity of the B.A. Courses in Literature and Science.—The nature of these alternative courses was explained in paragraph 138 of the last Review, and the changes since made have already been stated, but, in order to explain what follows, it will be necessary to state briefly the principal features of the examinations of the different universities. In Madras and Bombay every candidate for the B.A. degree is required to pass in English, a second language, and one other subject, which may be either literary or scientific. In the Punjab the rules were similar until 1892, but candidates were allowed to take either one or two optional subjects. In Calcutta and Allahabad there are two separate courses of study for the degree, English being common to both; on the literary side the second subject must be Mental and Moral Science, and the third is a Classical Language, History, or Mathematics; on the scientific side the second subject must be Mathematics, and the candidate has the choice of several branches of science to form the third subject. In Bombay there is also a separate

degree of Bachelor of Science, and in the Punjab a similar examination is contemplated by the University, though no candidates have yet appeared. The following figures will show the comparative popularity of the literary and scientific subjects. The figures are taken from the University Calendars, and do not in all cases agree with those in paragraph 60, which are taken from the departmental returns. The differences are partly due to the exclusion from the returns of extra-provincial colleges, and partly to the fact that candidates do not always graduate immediately after passing the examination for a degree.

63. **Madras.**—During the last five years 1,168 students have passed the optional branch of the B.A. Examination; of these 372 have taken Mental and Moral Science, and 222 History, so that rather more than half have chosen the purely literary subjects: on the scientific side 167 have taken Mathematics, 261 Physics, 101 Chemistry, 41 Zoology, 3 Animal Physiology, and 1 Geology, while the one candidate who took up Botany failed to pass.

64. **Bombay.**—Out of 476 candidates who obtained the degree in five years 46 took Mathematics as their optional subject, and 109 one or other of the branches of Natural Science, while 321 took up the literary subjects: during the same period only 10 obtained the B.Sc. degree, so that only one-third of the total number of graduates took up a scientific subject as part of the course.

65. **Calcutta.**—The returns for the last five years show that out of 1,765 graduates from all affiliated colleges, not merely those in Bengal, 393 took the B, or Science course, or 22·3 per cent. Including the unsuccessful candidates the proportion becomes much smaller, for only 904 out of 5,237, or 17·3 per cent., chose the B course. At all the examinations the Science students have done better than those who chose the literary course, the percentage of passes for the whole period being 43·4 for the former, and 31·7 for the latter.

Opinions differ regarding the cause of the greater success of the B candidates: some say that the best class of students choose the Science course, while others think that the Science course is easier, and those who choose it are generally of a lower order of ability. The quality of the candidates can be tested only by the University examinations, and these go to prove that on the average the B students are better than those who choose the A course, for a considerable majority of those who pass the First Arts Examination in the first division, as well as a majority of those who obtain scholarships, select the B course. Again in the provincial report for 1890-91 the Director shows that in English, which is common to the two courses, the percentage of failures is smaller among B than among A candidates, both for the province generally and also for students of the same college, who attend the same lectures. The opinion that the Science course is easier also has some foundation; it is probable that the average student, and especially the candidate for a mere pass, finds it more difficult than the literary subjects, but a student who is able to overcome the initial difficulties of the subject is more certain of securing high marks than in such subjects as Philosophy and History, in which the nature of the questions depends very much upon the idiosyncrasies of the examiner. Hence the proportion of candidates who obtain honours is nearly twice as great in the B as in the A course. The prospect of employment in Government service probably has also some effect in determining the choice of the candidates, for graduates who take up the Science course more readily obtain appointments in schools. On the other hand, very few of the colleges under private management have any provision for teaching scientific subjects, and the students of those colleges are forced to take the literary course.

66. **Allahabad.**—The proportion of candidates taking up the Science course is even smaller than in Calcutta, being only 16 per cent.; among the successful

candidates the proportion is a little more, 17 per cent. Although the proportion of passes is rather higher in the B course, the latter is supposed to be more difficult, and "hence none but the few men who think they have a special aptitude for physical science select this branch of study; while the majority adhere to what they wrongly believe to be the safer line of language, philosophy or history." The principal colleges are said to be liberally equipped with the apparatus and appliances necessary to the successful study of scientific subjects.

67. Punjab.—The University Calendar shows the subjects taken up at the B.A. Examination for three years only, all under the old rules; of 87 successful candidates 59 took only literary subjects, 15 took Mathematics, and 13 Physics and Chemistry, with or without Mathematics.

68. Comparative Success of Government and other Colleges.—The next three tables give a classification of the candidates who passed the University examinations of 1886-87 and of 1891-92 according to the management of the colleges in which they were educated:—

M.A. Examination.

Provinces.	1886-87.					1891-92.				
	Institutions under public management.	Aided Institutions.	Unaided Institutions.	Private students.	Total.	Institutions under public management.	Aided Institutions.	Unaided Institutions.	Private students.	Total.
Madras	...	...	...	3	3	...	...	...	6	6
Bombay	6	2	...	...	8	5	1	...	...	6
Bengal	40	13	6	4	63	24	3	4	15	46
N.-W. Provs. and Oudh	5	1	...	...	6	6	3	...	6	15
Punjab	...	...	...	...	..	2	...	...	...	2
Central Provinces	...	...	1	...	1	1	3	...	..	4
Total	51	16	7	7	81	38	10	4	27	79

B.A. Examination.

Provinces.	1886-87.					1891-92.				
	Institutions under public management.	Aided Institutions.	Unaided Institutions.	Private.	Total.	Institutions under public management.	Aided Institutions.	Unaided Institutions.	Private students.	Total.
Madras	82	74	1	1	158	66	105	12	133	316
Bombay	66 2*	13 ...	... ...	.. ...	79 2*	82 3*	47 ...	... ...	... ...	129 3*
Bengal	118	114	168	29	369	123	67	73	10	273
N.-W. Provs. and Oudh	29	34	3	...	66	41	66	2	3	112
Punjab	14	6	...	4	24	22	16	...	7	45
Central Provinces	3	7	3	...	13	3	14	...	2	19
Burma (Lower)	...	...	...	1	1	4	...	...	...	4
Total	314	248	115	35	712	344	315	87	155	901

NOTE.—Bachelor of Oriental Learning excluded.

* Candidates at the examination for B.Sc. degree.

Examinations intermediate between Matriculation and the Final Examinations for the Degrees of B.A. and B.Sc.

Provinces.	1886-87.					1891-92.				
	Institutions under public management.	Aided Institutions.	Unaided Institutions.	Private.	Total.	Institutions under public management	Aided Institutions.	Unaided Institutions.	Private students.	Total.
Madras	425	411	64	37	937	187	461	138	184	970
Bombay	189	99	...	1	289	122	143	49	...	314
Bengal	280	147	276	13	716	159	141	499	12	1,011
N.-W. Provs. and Oudh	38	51	7		96	51	90	16	4	161
Punjab	1	1	..	...	34	26	61	39	38	164
Central Provinces	12	14	...	1	27	26	32	1	..	59
Burma (Lower)	5	...	...	1	6	11	...	...	...	11
Total	950	723	347	53	2,105	782	928	742	238	2,690

69. M.A. Examination.—In 1891-92 the total number of candidates for the M.A. Examination from all provinces was only 183, or about three for each of the 58 first-grade college in India, or excluding the 71 private students and teachers, rather less than two to each college. The natural consequence of the paucity of the students is that very few colleges under private management can afford to open M.A. classes, and still fewer succeed in passing candidates every year. The larger Government colleges, a few missionary institutions, and one or two large unaided colleges in Calcutta alone supply a regular flow of candidates. During the last five years 391 candidates have passed the examination, of whom 87 were teachers or private students; of the remainder 206 studied in 11 Government colleges, 68 in 10 aided colleges, and 29 in 4 unaided colleges, while 1 was educated in a college under public management in a Native State not included in the departmental returns. Of the 26 colleges from which the candidates came only 23 furnished candidates at the examination of 1891-92, and only 19 succeeded in passing candidates, of which 10 were Government, 6 aided, 2 unaided, and 1 in a native state.

All the successful candidates of Madras are classed as private students in the departmental returns, but in the University Calendar 5 out of the 21 are said to have studied for the degree in one or other of the affiliated colleges; the M.A. course was never regularly taught in any college in the province until 189., when it was introduced into the Presidency College, and the example thus set was followed in one or two other colleges. In March 1892 there were 8 students preparing for the examination in the Presidency College, and one in each of three other colleges; 8 of these were in receipt of Government graduate scholarships. The two Government colleges at Bombay and Poona both prepare candidates for the degree, as also do the Wilson College, and St. Xavier's, both of which are aided institutions in Bombay. The Presidency College, Calcutta, supplies nearly one-third of the entire number of Masters of Arts, the total for five years being 123; 3 other Government institutions, 4 aided missionary colleges, and 3 unaided colleges have also passed candidates the total number for the province being 266. The Muir Central College,

Allahabad, comes next to the Presidency College in point of numbers, though very far behind it, the total being only 27; one other Government college in the North-Western Provinces and 3 aided colleges have also been successful. In the Central Provinces the Jubbulpore Government College and the aided Morris College have each passed one candidate, the other 4 candidates from these provinces being all private students. In the Punjab the Lahore Government College has passed 5 students, and the Oriental College one. The Rangoon College has not yet sent up any candidates for the degree.

At the M. A. Examination each candidate is examined in one subject only, except in Bombay, where History and Philosophy are taken together, and Physics and Chemistry; the following is a classification of the successful candidates according to the subject chosen:—Languages 215, Mental and Moral Science 61, History 12 (besides 4 taking this subject in combination with the preceding), Mathematics 36, Physics 32, Chemistry 26 (besides one who also took Physics), Natural Science 9; the latter term includes Botany, Zoology, Geology, Physical Geography, and Animal Physiology in various combinations. Hence it appears that 288, or nearly 74 per cent., chose literary subjects, and only 103 took up scientific subjects, including Mathematics. The majority of the science students belong to the Presidency College, Calcutta, which supplied 23 out of 36 in Mathematics, 18 out of 32 in Physics, and 20 out of 26 in Chemistry; the number taking the latter subject is likely to increase when the new chemical laboratory, which is now under construction, is completed.

The above figures are taken from the University Calendars, and therefore do not agree with those in paragraph 60.

70. B.A. Examination.—Aided colleges are gradually taking a larger share of the work of training students for the B.A. Examination, the increase in the number of successful candidates being 67, against 30 in Government institutions. They do not, however, as yet take their full share of the work, for while the number of students in first-grade aided colleges is nearly 20 per cent. more than in Government colleges of the same class, the number of graduates is about 8 per cent. less, and the number of candidates for the degree about 5 per cent. less. In Madras and Bengal Government colleges are more successful in passing students, but in the other provinces aided colleges did better than Government institutions at the examinations of 1891-92; taking all provinces together 42·5 per cent. of the candidates from colleges under public management were successful, and 41·4 per cent. of the candidates from aided colleges. Unaided colleges were much less successful, passing only 22·5 per cent., but this is owing to the fact that nearly all the candidates from colleges of this class belonged to Bengal, where the percentage of success was very low for all institutions, the highest being 31·1 in Government colleges. Of the 58 first-grade colleges 54 sent up candidates to the examination, one aided and 3 unaided colleges failing to do so. Nearly half of the candidates in Madras are shown as private students, but most of these had previously passed in the language branch of the examination from an affiliated college, and had also read the course for the optional branch at the same time, appearing for examination in that branch a year or two later as private students; nearly 60 per cent. of these candidates passed, while of the private students of other provinces only 20 per cent. were successful.

At the First Arts and other preliminary examinations for the degree both aided and unaided colleges presented more candidates than Government institutions and the former also passed more. Colleges under private management were almost as successful in passing candidates as Government colleges, the percentages being Government 43·5, aided 42·1, unaided 39·4.

71. Provision of Scientific Instruction.—Since the date of the last Review the colleges under private management have not made much progress in the direction of the extension of scientific education. Of the 8 first-grade colleges under private management in Madras the Christian College and two colleges in Trichinopoly are affiliated to the University in Physics, and the first also in Physiology and Zoology, but no branch of Physical or Natural Science is taught in the others. In 1892 provision was made in the Presidency College for teaching all the branches recognised by the University, and Physics is taught in one other Government college. In Bombay the two aided colleges named in the last Review have not succeeded in passing any candidates at the B.Sc. Examination since 1886, but at the B. A. Examination the Wilson (formerly called Free General Assembly) College has passed more candidates (19) in Natural Science than any other college during the last two years; St. Xavier's also passed 6 candidates, and the Gujarat College one; St. Xavier's also passed one candidate in Physics and Chemistry at the M.A. Examination of 1891. Of the two Government colleges the Elphinstone College has passed candidates in Science at all the examinations, and the Deccan College at all but the B.Sc. In Bengal the City College, Calcutta (unaided), regularly sends up a large number of candidates to the B.A. Examination in the Science course; at the last examination 15 students of this college passed, two with honours in Physics and Chemistry. Among aided colleges only St. Xavier's and the General Assembly's Institution have adopted the B course, and passed 8 and 5 respectively. All the Government colleges of the first grade passed candidates in the Science course, except the Bethune College, which is exclusively for girls. The three colleges named and the Metropolitan Institution have also passed one candidate each at the M.A. Examination during the last five years in scientific subjects. A Professor of Geology has recently been appointed in the Presidency College; formerly this subject was not taught in any Arts college in the province. In the North-Western Provinces the Agra College, and the Canning College, Lucknow, are the only institutions under private management that have succeeded in passing students in the Science course at the B.A. Examination, but all the principal colleges are said to be provided with the means of teaching science. In the Punjab the Lahore Mission College passed one candidate in Physics and Chemistry at the last B.A. Examination. In the Central Provinces the Calcutta Science course is taught in all the colleges, and at the last examination one candidate from the Hislop College obtained honours in Physics and Chemistry. At the Rangoon College the Science course alone is taught.

72. Extension of Collegiate Education.—The Commission pointed out that new or increased facilities for collegiate education were required in Sind and at Ahmedabad in Bombay, at Bhagalpur in Bengal, and at Jubbulpore in the Central Provinces. At the time when the last Review was written correspondence was going on with the local authorities in Sind with the view of establishing a college under local management. A Sind College Association was formed, and subscriptions were very freely given both by private individuals and by local and municipal boards, the boards promising annual grants amounting to nearly R20,000 a year. In January 1887 the college was opened at Karachi, and a few months later the endowment fund exceeded a lakh of rupees. The Association undertook to provide a new and handsome building for the college out of funds collected for the purpose, and before the end of the year the foundation stone was laid by His Excellency the Viceroy. The cost of the building was estimated at 2 lakhs, nearly half of which has already been paid by Government; of the remainder R80,000 had been subscribed before the end of 1887-88. A donation of R20,000 was made to the college in 1887 by Mr.

Lala Behrumal Mayaram for the purpose of forming a library, and a grant of R10,000 was made by the Local Government for the same purpose; the Government also sanctioned an annual grant of R10,000 to the college. In March 1892 there were 66 students on the rolls of the college, which is affiliated to the University up to the B.A. and B.Sc. Examinations, under the name of the Dayaram Jethmal Sind College, in commemoration of the first President of the Sind College Association, to whose exertions the establishment of the college is in great measure due.

With regard to Ahmedabad the Commission recommended that the existing Gujarat College should be raised to the first grade, and ultimately transferred to native management. Both these recommendations have now been carried out; since April 1887 the college has been under the control of a committee consisting of native gentlemen, and three officers nominated by Government, and has received an annual grant of R10,000; it has also been affiliated to the University up to the B.A. standard. Since the change of management the number of students has risen from 50 to 106.

The Government of Bengal deemed it unnecessary to establish a Government college at Bhagalpur, with Patna within a few hours' journey by rail; the correctness of this view was shortly afterwards proved, for in 1887 a second-grade college was established by Rai Tej Narayan Singh Bahadur, without any assistance from the Department. In 1890 the college was raised to the first-grade, and now numbers 80 students.

The action taken with regard to Jubbulpore was fully detailed in the last Review.

The Commission also invited the attention of the Government of the Punjab to the question of the establishment of an aided college at Delhi under native management. The Local Government has not taken any action in the matter, and the necessity for such action is not apparent, since the St. Stephen Mission College is not overcrowded.

73. Grants to Aided Colleges.—The action taken by the Government of Bombay in consequence of the recommendations of the Commission on this subject was explained in the last Review; it was there stated that under the revised rules for aid the total amount of the grants to colleges in 1885-86 was estimated at R24,000, but the actual expenditure was only R9,400. In the following year the grants rose to R22,000, or excluding the Sind College, then newly added to the list of aided institutions, to R19,500. Since that time the grants have continued to increase, and in 1891-92 each of the four aided colleges received more than the total sum paid to the three colleges in 1885-86.

74. Employment of Indian Graduates.—Indian graduates are now very extensively employed as professors in Government colleges in most of the provinces. In the Madras Presidency College two professors and most of the assistant professors are natives of India, and in the other two Government colleges the entire staff, with the exception of the Principal, consists of graduates of Indian Universities. Including two Inspectors of Schools, four native graduates are on the graded list, two holding permanent and two officiating appointments. In Bombay the graded list contains the names of four Indian graduates, three of whom are professors in the Deccan College, and the fourth an Inspector of Schools. Several other natives of India also hold appointments in the Government colleges. In Bengal 7 out of 32 members of the superior graded service are natives of the province; 3 of them, who are graduates of London, are professors in colleges, one is the Principal of the Sanskrit College, and the other 3 are Inspectors of Schools. The Presidency College and the Patna College are the only Government colleges in which the majority of the professors are Europeans; in the others the number of Europeans does not exceed 2.

The Bethune College staff consists entirely of Indian graduates, 3 of whom are ladies. In the North-Western Provinces there are no natives of India on the graded list, but at both of the Government colleges Indian graduates are employed as professors or assistant professors of Mathematics and Science. In the Punjab two natives of India have been appointed to the graded list, one of whom is Professor of Mathematics in the Lahore College, and the other an Inspector of Schools. Four other Indian graduates form part of the college staff. In the Jubbulpore College the Principal alone is a European. It is worthy of note that in several of the Government colleges natives of India have been appointed Professors of English.

75. **Withdrawal of Government from the Direct Management of Colleges**—The Commission (VIII, 32) divided Government colleges into three classes, (1) colleges which should be maintained by Government, (2) colleges which should be transferred to private management, provided this could be done without risk to their permanent efficiency, and (3) colleges which should be closed, if it was impossible to transfer them to private management. In the next recommendation the Commission requested the Government of Madras to deal with the second-grade colleges of that province on the principles applicable to the second or third of the above classes, as might be deemed advisable in each case. Of the 7 colleges referred to one had been transferred to municipal management, and one had been closed before the last Review was written; at the end of 1886 the Cuddalore College was closed, and its place was taken the following year by a college under a native committee, which received aid from Government in 1888-89. In May 1888 the Berhampore College was transferred to a native committee, by whom it is still maintained as an unaided institution. Six months later the Madura College was closed, and before the end of the year the native residents had established another college in its place, with a grant from Government. The Calicut College was closed in 1891-92, in consequence of the establishment of a municipal college at Tellicherry in the same district. The only second-grade college still maintained by the Department is the one at Mangalore, where there is also a first-grade aided college under missionary management.

With reference to Bengal the Commission recommended that the Krishnagar and Rajshahi Colleges should be treated as belonging to the second class, and those at Chittagong, Berhampore, and Midnapur as of the third class. The action of the Local Government with regard to the last two was explained in the last Review, though it was not carried into effect till 1887-88. The Krishnagar Municipality was asked to take over the Krishnagar College and the attached school with a grant-in-aid from Government, but that body declined to accept the charge. In order to increase the number of students, and so reduce the Government expenditure, B.A. classes were opened in 1887, and the number of students has doubled in consequence. In Rajshahi also no local body has been found willing to accept the responsibility of managing the college, but the cost to Government has been materially reduced. The Chittagong College is maintained at so small a cost that the question of its abolition has been deferred.

The only other specific recommendation under this head referred to the Gujarat College, and the action taken upon it has already been stated.

In 1886-87 overtures were made to the Deccan Education Society for the amalgamation of the Deccan and Fergusson Colleges, but the terms offered were not accepted by the Society.

76. **Scholarships.**—The Commission invited the attention of the Local Governments to the question of providing scholarships to enable graduates to

continue their studies up to the M.A. Examination, but up to 1886 nothing had been done in this direction. In 1889 the Madras Government established five scholarships of the value of R30 a month for two years, open only to those persons who took Mathematics or a branch of Physical or Natural Science as an optional subject at the B.A. Examination, and in the following year the number was increased to 8; in the first year there were only 4 candidates for the 5 scholarships, but in 1891-92 all were awarded, and 3 students were preparing for the M.A. Examination without such assistance, besides private students. In Bombay the Dakshina Fellowships now serve the purpose of graduate scholarships; in 1890-91 the rules for the award of these fellowships were revised, the changes made being in conformity with the recommendation of the Commission (VIII, 15); 3 fellowships of the value of R50 a month for one year are now given to each of the 4 aided colleges, and 6 of R60 a month to each of the 2 Government colleges. They are open to graduates reading for a higher degree, and willing to act as tutors; the Fellows are appointed by the Director on the nomination of the Common Room of the College. In the Wilson College a Parsi lady who passed the B.A. Examination in 1891 has been appointed a Dakshina Fellow. In Bengal there are no Government scholarships open to public competition at the B.A. Examination, but there are 11 endowed graduate scholarships attached to the Presidency College, and a few attached to other colleges. In the North-Western Provinces besides two endowed scholarships, 12 scholarships, of the value of R20 a month, tenable for 18 months in the Muir Central College, are awarded annually on the result of the B.A. Examination. In the Punjab one scholarship is awarded annually at the B.A., and one at the B.O.L. Examination, the value of the scholarship depending upon the class in which the candidate passes; in addition to these the University gives three scholarships at the B.A. Examination, and one at the B.O.L., the rules for the two sets of scholarships being identical. In the Central Provinces three graduates' scholarships are given annually on the result of the B.A. Examination of any Indian University; one scholarship is tenable in a Medical college, one in an Engineering college, and the third in an Arts college, but the holder is required to read for the degree of B.Sc., or for the M.A. in Natural and Physical Science. Special scholarships to enable graduates to proceed to Europe to practically study some branch of mechanical industry (VI, 17) have not yet been created in any province. The recommendation that open scholarships should be substituted for free-studentships in Madras has not yet been carried out, most of the scholarships that have been created being reserved for Muhammadans and other backward classes. It appears, however, that free studentships are being gradually abolished in the Presidency College, and in the Christian College. No action appears to have been taken by the Bombay Government towards throwing open the scholarships attached to the Elphinstone and Deccan Colleges (VI, 19).

The total Government expenditure on scholarships in Arts colleges in 1891-92 was R1,48,949, nearly half of which (R71,507) was incurred in Bengal. In the North-Western Provinces also the expenditure under this head exceeds 2 per cent. of the entire provincial allotment for education, the maximum assigned by the Commission (VI, 14). In Assam and Coorg the proportion is very much higher, expenditure on scholarships taking the place of direct expenditure on colleges. The total expenditure from all sources on Arts college scholarships was R2,17,610.

77. **Oriental Colleges.**—The returns for 1891-92 show four colleges with 561 students, against three colleges with 704 students in 1887. Of these only two, the Oriental College, Lahore, and the Oriental department of the Canning College, Lucknow, satisfy the definition of an Oriental college, accepted by the

Government of India, since their students read a course of Oriental studies prescribed by the Punjab University. The Benares Sanskrit College is not connected with any University, but holds its own examinations, which are also open to the students of other institutions. The Oriental department of the Mirzapur Zila School in the North-Western Provinces appears to send up candidates only to the departmental examination in Arabic, and therefore has no claim to the designation of a college. In the same province two institutions that regularly send up candidates to the higher Oriental examinations of the Punjab University have been classed as schools; these are the Church Mission School, Lucknow, and Jay Narayan's College, Benares, both of which are aided by Government. The latter is a Sanskrit College, but in the former Arabic, Persian, and Sanskrit are all taught.

78. Oriental College, Lahore.—In the last Review Sir Alfred Croft gave an account of an investigation into the working of this college by a Committee appointed for the purpose. It was found that the number of students had been kept up by the indiscriminate award of stipends, and that in some of the subjects included in the college course, such as Hindu and Muhammadan law and medicine, the teaching, if there was any, was altogether inefficient.

In 1886-87 proposals were drawn up for a complete re-organisation of the college, one of the most important changes proposed being the amalgamation of the two sets of classes existing in the college for teaching History, Geography, Mathematics, etc. In one set of classes instruction was given through the medium of Urdu, and in the other through the medium of Hindi, and it was pointed out that this involved a considerable expense without any corresponding advantage, since the students of the two sets of classes were able to converse with one another on any common topic outside the lecture-room, and therefore would find no difficulty in understanding a common course of lectures, and in fact Hindus and Muhammadans attended the same lectures in the vernacular at the Medical College. The chief objection to the amalgamation was that in scientific subjects different technical terms were used in the two vernaculars, but "as a matter of fact, the English technical terms are now largely used in the Oriental College, the vernacular terms being learnt, but not generally used." The Principal also pointed out that the students on the Hindi side were capable of receiving instruction through the medium of English, and were so taught, a few explanations only being given to them from time to time in their own vernacular. This amalgamation was not carried out, and fresh proposals were drawn up by a Committee in 1887, and carried into effect early in 1888, when Dr. Stein, an able Oriental scholar, was appointed Principal of the college. The number of stipendiary students was greatly reduced, the classes in Medicine and Engineering were transferred to other colleges, the irregular practice of giving instruction through the medium of English to students on the Hindi side was discontinued, and the system of teaching Oriental languages was changed. "Hitherto the study of Eastern languages has been conducted in accordance with the native system; but it is the object of Dr. Stein to introduce, as far as possible, the historical method of European philology; and though the improvements he contemplates must necessarily take time to accomplish, it may be hoped that before many years have passed, the college will obtain a high reputation for the enlightened study of Oriental languages, and will be able to contribute largely to the promotion of Oriental research."

In consequence of these changes the number of students in the college department fell in one year from 135 to 76, and in March 1892 the number on the rolls was only 72. Of these 16 were reading for degrees and 56 were preparing for the examinations for Oriental titles. The total expenditure in 1891-92 was R20,782, and the expenditure from provincial revenues R12,098. The

fee-receipts amounted to only R467. The Director does not take a very hopeful view of the future of the college; in the report for 1889-90 he said: "It has been found impossible to maintain any Vernacular High School in the province, with the exception of that attached to the Oriental College, in which the study of English has been lately introduced; and it is, I think, hardly to be expected, under these circumstances, that many candidates will appear at the Oriental degree examinations, so long as examination through the medium of the vernacular in History, Philosophy, Mathematics, and Science is compulsory." And again in the report for 1891-92—"The out-look, however, for the General, or Degree, side of the college continues unpromising; and I regard the very general introduction of English with a good deal of suspicion."

79. Benares Sanskrit College.—This institution was formerly treated as a department of the English Arts College, though the divergence of studies in the two institutions was so complete that no student could pass from the one to the other. In 1888-89 the Principalship of the Sanskrit College was separated from that of the Arts College, and the two colleges are now considered as separate institutions, though they share the same building. In 1887 a revised course of study was drawn up, and in 1889 this was made compulsory on all Sanskrit schools receiving aid from Government. The *Madhyama Pariksha*, or intermediate examination, has been replaced by four annual examinations, and a definite course of study laid down for each year, and a similar change has been made in the final examination, but some candidates are still allowed to take the entire course at one examination. The number of candidates at the examinations has increased very rapidly during the last five years; in 1886-87, 25 candidates passed the first, 17 the intermediate, and 7 the final examination; in 1891-92, 52 passed the first, 71 the intermediate, and 48 the final examination. Remarking on the entire absence of candidates from other institutions at the final examination of 1888 the Principal said: "The point is not without interest in its direct bearing on the character of this institution. The Sanskrit College still maintains its unique position in these provinces as the living teaching centre of the highest branches of Hindu learning. As in the past, so now the Sanskrit College aims at teaching the best of the old learning; its modern or Anglo-Sanskrit side is gradually bringing its younger members, at any rate, within the influence of western methods: thus of all the Indian institutions with which I can claim acquaintance, it most nearly approaches the character of a genuine University as exemplified in the older foundations of Europe. Amply endowed by Government, favoured in the name of its Professors and in the happy accident of a local habitation in Benares, the Sanskrit College may reasonably be expected to exercise a powerful and widespread control over Sanskrit studies. Its success in this direction will be most justly estimated, not by the measure in which it has taken up with the present day examination craze, but by the high standard of teaching maintained within its walls." The number of students has fallen from 486 in 1887 to 414 in 1892; this is ascribed partly to greater strictness in registration, and partly to the uncertain term of residence of the students from Behar. The pupils of the Anglo-Sanskrit department very readily obtain appointments as pundits in schools, and the demand for such pundits is so great that it is difficult to induce the students to remain in the college after reaching the Entrance standard. The total expenditure in 1891-92 was R14,860, almost all of which was paid from provincial revenues; no fees were paid by the students.

80. Canning College, Lucknow.—In the report for 1887-88 the Director calls the Oriental department of this college "a moribund institution where a heterogeneous assemblage of students receive a more or less free course of instruction." At that time there were 100 students on the rolls, but the number

has since decreased to 68: of these 26 learn Arabic, 21 Persian, 10 Sanskrit, and 11 Urdu or Hindi; the scholars are in all stages of instruction, from the simplest elements in each language to the most advanced studies in Philosophy, Grammar, etc. They belong for the most part to the poorer classes of the community, being the sons of priests and maulavis or of clerks on small pay, and if not supported by their relations earn a living by giving lessons. No fees are paid by the students of Sanskrit, but the others pay one anna a month. Candidates are sent up to the examinations of the Punjab University and of the Benares Sanskrit College, and also to the departmental examinations in Arabic. The total expenditure in 1891-92 was R5,601, to which Government contributed R2,281; the amount realised from fees was only R28.

81. Sanskrit College, Calcutta.—This institution is shown in the returns as an English college, because it contains classes preparing for the First Arts Examination. The Oriental section consists of the M.A. class, preparing students for the University M.A. Examination in Sanskrit, four classes preparing for the Sanskrit Title Examination in Kavya, Smriti, Darsana, and Grammar, respectively; two classes teaching the Sanskrit subjects of the B.A. Examination, and a recently formed class for the study of the Vedas. The total number of students in the Oriental section in March 1892 was 52, of whom 12 were in the classes reading for University examinations.

CHAPTER V.

SECONDARY EDUCATION.

82. Character and Scope of Secondary Education.—In the Report of the Education Commission (paragraph 225), Secondary Education is described as "that which leads up from the primary to the collegiate course," but it is pointed out that "no definition can be framed which will exactly cover the subjects of secondary education in all provinces." The difficulty of defining what is meant by secondary education has been increased since these words were written; at that time the upper limit was "precisely defined by the Matriculation standard of the Universities, since that standard has hitherto been regarded not only as the introduction to a course of collegiate study, but also as the final standard of secondary schools:" this is no longer universally the case, for in some provinces an alternative standard has been introduced as the final standard of high schools, which does not lead up to any of the University examinations. Hence the variety of standard, which at the time when the last Review was written "was practically confined to lower secondary (or middle) schools," now extends also to upper secondary (or high) schools. The alternative standards are more practical than the University examinations, and this tends to make less clear the line of distinction drawn by the Education Commission between secondary and primary education "that the character of the former no longer has exclusive reference to the practical requirements of the student in after-life."

83. Different Classes of Secondary Schools.—In the tables appended to the last Review secondary schools were divided into two classes only, English and vernacular. The classification by grade, into high schools and middle schools, had been abolished on the recommendation of the Education Commission, because the term "high school" was used in some provinces to denote a college teaching up to the First Arts standard. In paragraph 155 of his Review Sir Alfred Croft stated that the term "second grade college" was uniformly applied to such institutions, and recommended that the name "high school" should again be recognised as denoting a school teaching up to the matriculation standard. This recommendation was adopted by the Government of India after consulting the Local Governments, all of which, with the exception of Bombay, approved of the change. In the present chapter, therefore, and also in the tables at the end of this report, statistics will be given for high and middle schools separately for 1891-92, but it is impossible to give the corresponding statistics for 1886-87. The classification of schools as English and vernacular has also been retained; schools in which English forms a part of the regular course of study of all the scholars, or at least of all the scholars in the higher classes, are counted as English schools, but if English is an optional subject only, the schools are counted as vernacular. The number of institutions returned as vernacular high schools is so small that it has not been considered necessary to show them separately in the tables.

Before any comparison can be made between the number of secondary schools in different provinces, it is necessary to state the differences in the mode of classification of schools and departments of schools. In Madras a high school may contain scholars in all stages of instruction from the alphabet upwards, but many schools contain only the secondary classes: middle schools usually contain all the classes, but here again the rule is not universal. The three highest classes are counted as belonging to the high stage, whether the

final standard is that of the University matriculation, or the Government Upper Secondary examination. The next three classes belong to the middle department, and in them the course of instruction is the same for all. The primary department contains four classes, one belonging to the upper primary division, and the rest to the lower primary. In Bombay secondary schools (schools for Europeans excepted) contain no primary departments, the grant-in-aid Code requiring such departments, when they exist, to be registered as separate schools. The secondary course extends over seven years, three in the middle stage, and four in the high. In Bengal all secondary schools contain primary departments: there are two classes of high schools, in one of which the medium of instruction is English throughout the course; in these schools considerable latitude is allowed to the managers, but on the average the first three classes may be considered to belong to the high department, the next two to the middle, and the remaining four or five to the primary. In the second class of schools English is the medium of instruction in the first four classes, which are counted as belonging to the high stage; in the middle section all subjects are taught through the vernacular, English being taught as a language; this portion of the school exactly corresponds to a middle English school, and has two middle and five primary classes. In the North-Western Provinces the secondary schools contain primary departments; there are two classes in each of the five stages, high, middle, upper primary, lower primary, and preparatory; the last two sections are wanting in many of the schools under departmental management. In the Punjab the rule is the same, but the middle section contains three classes instead of two. In the Central Provinces secondary English schools contain no primary classes; the middle stage lasts four years, and the high two years. In Burma primary classes exist in all schools; the high department contains two classes and the middle three. In Assam the schools are under similar rules to those in Bengal. In Berar the secondary schools contain primary departments, but in other respects the rules are the same as in Bombay. The three secondary schools in Coorg all have primary classes.

84. Secondary Schools for Boys, English.—The following tables show the total number of high and middle schools for boys, and the number of scholars in them on the 31st March, 1887 and 1892, and for the latter date only the statistics for the two classes of schools taken separately: for the reason given in the preceding paragraph the statistics for 1887 are not available.

Secondary Schools for Boys, English.

Province.	1886-87.												1891-92.											
	Maintained by the Department.		Maintained by Municipal or Local Boards.		Maintained by Native States.		Aided Institutions.		Unaided Institutions.		Total.		Managed by Government.		Managed by Local Fund and Municipal Boards.		Maintained by Native States.		Aided Institutions.		Unaided Institutions.		Total.	
	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.
Madras	9	1,084	133	11,071	...	...	274	30,866	91	7,225	507	50,246	16	2,051	110	8,241	...	...	273	30,058	92	8,672	491	49,022
Bombay	45	9,413	107	3,609	62	5,407	108	14,793	15	1,872	337	35,094	28	7,238	83	3,476	75	6,419	110	14,942	56	7,293	352	39,368
Bengal	60	15,917	13	2,234	...	...	695	61,571	248	35,588	1,016	115,310	55	14,824	28	3,673	...	...	770	69,490	342	47,947	1,195	135,934
North-Western Provinces and Oudh.	1	571	46	8,067	...	...	77	13,227	9	905	133	22,770	40	7,458	11	686	...	...	80	12,603	8	1,162	139	21,909
Punjab	6*	1,380*	59	15,554	...	...	32	7,631	12	1,397	109	25,962	4	1,464	69	16,333	...	...	44	9,755	19	2,988	136	30,540
Central Provinces	37	2,687	2	89	1	8	23	1,250	4	80	67	4,114	35	2,654	9	706	4	45	29	1,541	1	53	78	4,999
Burma — Upper	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	11	630	...	...	11	630
Burma — Lower	2†	225†	15	2,012	...	...	26	3,789	...	...	43	6,026	2	907	17	1,777	...	...	27	4,343	...	...	46	7,027
Assam	13	2,371	...	...	...	...	31	2,869	16	1,756	60	6,996	13	2,201	...	...	...	...	36	3,444	18	1,806	67	7,451
Coorg	1	332	1	90	...	...	1	19	...	...	3	441	1	282	1	196	...	...	1	22	...	...	3	500
Hyderabad Assigned Districts.	26	4,695	...	...	...	...	...	...	...	...	26	4,695	26	4,639	...	...	...	...	...	...	...	...	26	4,639
Total	200	38,675	376	42,726	63	5,415	1,267	136,015	395	48,823	2,301	271,654	220	43,718	328	35,088	79	6,464	1,381	146,828	536	69,921	2,544	302,019

* Including 5 Institutions maintained by other Departments of Government or in other ways with 1,178 pupils.

† Including 1 Institution maintained by other Departments of Government or in other ways with 48 pupils.

Secondary Schools, Boys, English (High Schools).

Province.	1891-92.											
	Managed by the Department.		Managed by Local or Municipal Boards.		Maintained by Native States.		Aided Schools.		Unaided Schools.		Total.	
	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.
Madras	4	678	26	3,219	...	...	66	14,419	40	5,686	136	24,002
Bombay	19	5,843	...	...	12	2,817	34	10,102	7	3,644	72	22,406
Bengal	49	13,991	8	2,023	...	...	178	27,891	133	33,528	368	77,433
N.-W. P. and Oudh	34	6,857	1	92	...	...	41	8,309	4	761	80	16,019
Punjab	4	1,464	20	6,734	...	...	22	6,579	8	1,862	54	16,639
Central Provinces	5	281	...	....	...	...	7	379	...	...	12	660
Burma { Upper	...	...	...	...	...	...	...	...	...	...	...	..
Burma { Lower	2	907	3	652	...	...	6	1,839	...	..	11	3,398
Assam	11	2,047	...	...	...	...	4	769	3	636	18	3,452
Coorg	1	282	...	...	...	...	1	22	...	...	2	304
H. A. Districts	2	380	...	...	...	...	...	...	...	...	2	380
Total	131	32,730	58	12,720	12	2,817	359	70,309	195	46,117	755	164,693

Secondary Schools, Boys, English (Middle Schools).

Province.	1891-92.											
	Managed by the Department.		Managed by Local or Municipal Boards.		Maintained by Native States.		Aided Schools.		Unaided Schools.		Total.	
	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools	Pupils.	Schools.	Pupils.
Madras	12	1 373	84	5,022	...	...	207	15,639	52	2,986	355	25,020
Bombay	9	1,395	83	3,476	63	3,602	76	4,840	49	3,649	280	16,962
Bengal	6	833	20	1,650	...	...	592	41,599	209	14,419	827	58,501
N.-W. P. and Oudh	6	601	10	594	...	...	39	4,294	4	401	59	5,890
Punjab	...	...	49	9,599	...	...	22	3,176	11	1,126	82	13,901
Central Provinces	30	2,373	9	706	4	45	22	1,162	1	53	66	4,339
Burma { Upper	...	...	...	...	...	...	11	630	...	...	11	630
Burma { Lower	...	...	14	1,125	...	...	21	2,504	..	...	35	3,629
Assam	2	154	...	...	...	...	32	2,675	15	1,170	49	3,999
Coorg	...	...	1	196	...	..	..	...	...	...	1	196
H. A. Districts	24	4,259	...	...	...	...	...	...	...	..	24	4,259
Total	89	10,988	270	22,368	67	3,647	1,022	76,519	341	23,804	1,789	137,326

85. Attendance in English Secondary Schools for Boys.—During the five years the number of secondary schools for the study of English increased by 243, or over 10 per cent., and the number of scholars in them by 30,365, or 11 per cent. During the preceding five years the increase in the number of schools was 8 per cent.; the rate of increase in the number of scholars cannot be determined, except in Bengal and Assam, for in other Provinces the returns for 1881-82 show the primary departments of high schools as separate schools. For the two provinces named the increase was 36 per cent. from 1882 to 1887, and 17 per cent. from 1887 to 1892. In Madras, the North-Western Provinces, and Berar, the total number of scholars has decreased, but an examination of Table V shows that in each of these provinces the high and middle sections of the schools are stronger than they were in 1887. The decrease of the primary section in Madras is due to the School Fee Notification. The minimum fee prescribed for primary schools before the end of 1891 was lower than that for primary departments of secondary schools, and the managers of many schools converted the primary departments into separate schools in order to charge the lower fees. Under a more recent notification the fees in schools under private management are left to the discretion of the managers. In Berar also the decrease is due to the separation of the primary departments of schools. The increase in the number of scholars amounts to 43 per cent. in the case of unaided schools, to 19 per cent. in schools maintained by Native States, to 8 per cent. in aided schools, while in Government and Board schools together there is a decrease of 3 per cent. The reason for linking these two classes of schools will be explained in the next paragraph.

The average number of scholars in a secondary school in 1892 was 119, against 118 in 1887: for high schools alone the average was 218, and for middle schools 77. The following table shows the average for each class of school:—

Average number of scholars in secondary English schools, 1892.

Class of School.	High Schools.	Middle Schools.
Departmental	250	123
Board	219	83
Native States	235	54
Aided	196	75
Unaided	236	70

For high schools the highest average, 311, is found in Bombay, though the schools of that province do not generally contain primary departments; the 7 unaided schools in Bombay have an average of 521. This, however, is in a great measure due to the method of classification adopted; the list of schools given in the report shows that besides the 72 schools classed as high, over a hundred of the middle schools contained high departments, some of which have sent up candidates to the matriculation examination. In 2 of the unaided schools shown as middle the number of scholars in the high stage was over 100. If all the unaided schools containing an average of 10 scholars in each of the four high school classes were classed as high schools, the average number of scholars in each unaided school would be reduced from 521 to 266. The smallest average is in the Central Provinces, where the 12 high schools contain only 55 pupils each; here also there are no primary departments. The middle English schools of Berar have an average of 177 pupils, and those of the Punjab of 170. Bombay and Upper Burma are at the other end of the scale with 61 and 57, respectively.

The percentage of scholars present daily, obtained by dividing the average daily attendance by the average monthly roll number, was less in 1892 than in

1887 for all classes of schools, aided schools excepted. The following table gives the percentage for both years :—

Percentage of scholars in daily attendance, 1886-87 and 1891-92.

Class of School.	1886-87	1891-92.
Departmental	84	82
Board	83	82
Native States	84	84
Aided	76	80
Unaided	80	79

It is usual to look upon an increase in this percentage as indicating an improvement of school discipline, but the fact that the percentage for aided secondary English schools throughout India fell in one year from 81 in 1885-86 to 76 in 1886-87 appears to show that such inferences rest upon very slender foundations. It is probable that a sudden decrease in the percentage is usually the result of the publication of stricter rules regarding the registration of attendance; this view is borne out by the fact that the grant-in-aid rules of Bengal, the Province in which the decrease was greatest, were revised in 1886-87. The Director, however, does not assign any reason for the decrease from 78 to 66 per cent. in middle English schools.

86. English Secondary Schools: Control.—The first table in preceding paragraph shows 220 schools in 1892 managed by Government against 200 in 1887, but this increase is merely nominal; in 1887 the heading of the first column was "Maintained by the Department," but in 1889 it was changed to "Managed by Government;" in consequence of this change the 38 zila schools of the North-Western Provinces, which are supported by local funds, but managed by the Department, have been transferred from the second column to the first. Madras is the only other province that shows an increase under this head, but here, though the increase is real, it does not indicate a departure from the principle that the Department should gradually withdraw from the direct management of secondary schools. Of the 16 schools shown in the table 10 are practising schools attached to training institutions; the control of the latter was transferred from the local boards to Government in 1891-92, and the schools were taken over at the same time. Of the remaining 6 schools, 2 are situated in the Agency tracts, 2 are for special classes of scholars, and only 2 are ordinary high schools. In Bombay the number (19) of Government high schools is the same as in 1887, but 1 school was transferred to the Ahmednagar Education Society, and 1 middle school was raised to the status of a high school. The number of middle schools has decreased from 26 to 9: 3 schools are reported to have been closed, 4 others were amalgamated, and most of the remainder now appear as municipal or aided schools. Under the head of local and municipal board schools, there is a large decrease in Bombay; this is confined to schools of the former class, which now number only 13, against 43 in 1887. A few of these have been transferred to other management, but the majority have been closed, because the number of scholars was not sufficient for their support. The average number in each school of this class was only 27, and of the schools now remaining it is only 23. In Bengal the number of Government high schools has fallen from 52 to 49, and that of middle schools from 8 to 6. Three high schools were transferred to the local municipalities, and 2 to private management, while 2 middle schools were raised to the grade of high schools. The 6 middle schools are either model schools attached to training institutions, or schools in backward districts like the Chittagong hill tracts. In the reports of the North-Western Provinces full details are not given, but apparently 9 of the zila schools have been raised from middle to high, and 1 new school has

been established. In the Punjab the 4 Government schools shown in the tables for 1891-92 include the Oriental College school, which in 1886-87 was included in the list of vernacular schools, the reason being that high schools are not sub-divided into English and vernacular. Three of the 5 schools "maintained by other Departments of Government or in other ways" have been transferred to another head, and the 2 asylums at Sanawar and Murree are now classed as Government schools. The only secondary school in the province that is directly managed by the Department is the model school attached to the Central Training College. The number of Board schools has increased by 10. In the Central Provinces the number of Government high schools has increased from 3 to 5, but this is merely a change of grade; the number of middle schools has decreased by 4. The changes in the other provinces are unimportant, and do not call for special comment.

Under the head of aided institutions there is a gain of 114 schools and 10,813 pupils: Bengal has contributed most largely to this, with an addition of 75 schools and 7,919 pupils. The other provinces that show a substantial increase are the Punjab, 12 schools, the Central Provinces 6, Assam 5, and Burma 12, 11 of which are in the newly acquired territory of Upper Burma, 10 being under the management of missionaries and 1 a railway school. Madras alone shows a decrease of one school. In most of the provinces the increase is common to both high and middle schools.

Unaided schools have increased by 141, and their pupils by 21,098. Bengal again heads the list with 94 new schools and 12,359 pupils, but the gain is proportionately larger in Bombay, where both schools and pupils have increased nearly fourfold. In the Central Provinces 3 out of 4 unaided schools have disappeared from the list, and the number in the North-Western Provinces has diminished by 1, though the number of pupils has increased.

87. Secondary Schools for Boys, Vernacular.—The following table gives statistics of these schools for 1886-87 and 1891-92:—

Province.	Secondary Schools for Boys, Vernacular, 1886-87.												Secondary Schools for Boys, Vernacular, 1891-92.											
	Maintained by the Department.		Maintained by Local or Municipal Boards.		Maintained by Native States.		Aided Schools.		Unaided Schools.		Total.		Managed by Government.		Managed by Local or Municipal Boards.		Maintained by Native States.		Aided Schools.		Unaided Schools.		Total.	
	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.
Madras	...	...	...	...	...	...	47	3,039	...	...	47	3,039	23	1,020	30	1,652	...	...	29	1,410	7	268	89	4,350
Bombay	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bengal	153	8,097	37	3,128	...	...	864	46,990	103	6,263	1,157	64,478	33	2,533	152	8 626	...	...	811	43,482	117	6,710	1,113	61,351
N.-W. P. and Oudh	1	66	442	40,002	...	...	14	1,249	11	920	468	42,237	...	...	323	29,211	...	...	7	661	3	218	333	30,090
Punjab	(a)1	(a)115	124	17,932	...	...	...	...	...	...	125	18,047	...	...	122	17,914	...	...	1	255	...	..	123	18,169
Central Provinces	...	...	...	...	...	...	...	...	...	...	...	...	19	2,284	120	13,938	8	896	24	1,458	...	...	171	18,576
Upper Burma	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lower Burma	...	...	1	76	...	...	14	1,203	...	...	15	1,279	...	...	...	...	...	...	22	1,579	...	...	22	1,579
Assam	16	1,495	...	...	...	...	29	1,789	2	171	47	3,455	14	1,121	...	...	...	...	27	1,639	2	94	43	2,854
Coorg	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...
H. A. Districts	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	171	9,773	604	61,138	...	...	968	54,270	116	7,354	1,859	132,535	89	6,958	747	71,341	8	896	921	50,484	129	7,290	1,894	136,969

(a) "Maintained by other Departments of Government or in other ways."

88. Attendance in Vernacular Secondary Schools for Boys.—Before comparing the number of schools and scholars in 1887 and 1892, it is necessary to subtract from the figures for the latter year those belonging to the Central Provinces. In 1887 all the vernacular schools of these provinces were counted as primary, even though they contained middle classes. The number of schools with scholars in the middle standards is not shown in the report, but probably there has not been much change in the five years, for the number of scholars in the middle classes has increased by 35 only, from 2,218 to 2,253. Excluding these provinces the rest of India shows a decrease of 136 schools and 14,142 pupils, or over 10 per cent. At first sight these figures seem to indicate a considerable check to the spread of vernacular education in India, but no such inference can be drawn from them. In most of the provinces middle vernacular schools form a class intermediate between primary schools and middle English schools. They differ from primary schools only by having two or three extra classes; in many cases these extra classes are opened with a very small number of pupils, and if the number cannot be kept up the school falls back to the primary grade. If the number of scholars is sufficient to maintain the middle department, it often happens that a demand for instruction in English is created, and then the school is converted into a middle English school. Hence these schools are subject to greater variations than English schools, and a considerable fall in their number may be accompanied by a large advance in the diffusion of education.

The decrease in the number of vernacular schools is most marked in the North-Western Provinces where the number of schools has fallen from 468 to 333, and the number of scholars in them from 42,237 to 30,090. Almost all of the schools are under the management of Local Fund Boards, and the cause of the decrease in their number is explained in the following extract from the report for 1887-88: "An inquiry into the staff attached to the schools showed that many of the village schools had been raised to the middle standard without any adequate staff being provided. The inevitable result was that the teachers devoted themselves to preparation of two or three pupils for the middle examination, to the neglect of the primary classes, which constituted the most important section of the schools. These schools are now being reduced to the primary standard, and in future no middle classes will be maintained in any school for which a full staff for the primary classes is not provided, as well as that required for the middle." During the first two years of the period under review, 96 of these schools were reduced to the primary class, but at the same time 11 town schools were also reduced or closed; the reports for the last three years do not separate the two classes of schools. The number of scholars has also been diminished by an increase in the school fees, but in spite of this it has been necessary in many cases to impose restrictions on the admission of scholars because the schools were overcrowded. Bengal and Assam also show a considerable decrease of both schools and scholars, for which no special reason is assigned. In Madras the number of schools has almost doubled, and the schools in Burma, which are all aided indigenous schools, have increased from 15 to 22.

In Bombay there are no middle vernacular schools, and Table V does not show any scholars of primary schools as having passed beyond the upper primary stage. There are, however, six standards prescribed for primary schools, Standard IV being the upper primary standard, and Standards V and VI above it, and leading up to the examination for admission to the lower branches of the public service; the pupils in these standards have apparently been included in the number of those in the upper primary stage, but they would be more correctly returned as belonging to the middle stage, though it might be a misnomer to apply the term "middle" to the examination for which

they are preparing. In Berar there are 1,374 scholars in primary schools who have advanced beyond the upper primary standard, but none of the schools have been recognised as secondary vernacular.

The average number of scholars in a middle vernacular school was 72 in 1892, against 71 in 1887; in schools under public management the average is 94, while in those under private management it is only 55. The vernacular schools of the Punjab are much stronger than those of any other province and contain on the average 148 pupils, while those of Madras and Bengal contain only 49 and 55, respectively.

A comparison of the average daily attendance in 1891-92 with that of 1886-87 shows a falling off in all classes of schools except unaided schools; the percentages are—for Government schools and for aided schools, 77 against 78, for board schools, 79 against 83, and for unaided schools, 78 against 77. I have already expressed the opinion that these figures have very little value, unless it is clear that the system of registration of attendances is unchanged.

89. Vernacular Secondary Schools: Control.—In Madras there were no schools of this class under public management in 1886-87, but now there are 23 under the direct control of the Department and 30 managed by Local Boards. All of the former are in the Agency tracts, where private enterprise cannot be relied upon to establish schools. With regard to the board schools the Director says, "It is doubtful whether they will all be able to take root as permanent middle schools." It does not appear probable that they will do so, for the middle sections contain an average of only 7 pupils against an average of 33 in middle English schools under the same management. Under the provisions of the Bengal Local Self-Government Act the control of all middle schools situated in extra-urban tracts of regulation districts was transferred from the Department to District Boards in 1887-88; hence the number of Government schools has decreased by 120; the 33 schools still remaining are situated either in municipalities or in districts in which the Act has not yet come into operation. The loss of 53 aided schools in Bengal is merely nominal, being due to the transfer to the list of upper primary schools of more than a hundred middle schools aided from funds intended for primary schools. The schools of the North Western Provinces and the Central Provinces have already been referred to; in both provinces the great majority of the schools are under the management of Local Boards. In the Punjab only one school is under private management. In Burma all the schools are aided indigenous institutions. In Assam Local Boards are not allowed to establish middle schools, though all grants to aided schools of this class are paid from local funds.

90. Stages of Instruction in Secondary Schools.—It has been stated above that the secondary schools of some provinces contain primary departments, while in other provinces the primary instruction is given in separate schools, hence the tables given in the preceding paragraphs do not furnish a fair estimate of the spread of secondary education in the different provinces, or of its gradual extension in the whole of India. The necessary data are, however, furnished by General Table V, which shows the number of scholars in each of the five stages of instruction, from which the figures in the following tables have been taken. The first table gives for the whole of India the number of scholars in each stage of instruction on the 31st March for each of the last six years, together with the percentage; the second table gives the corresponding statistics for each province for the years 1887 and 1892. In both tables English and vernacular schools are separated. In the first table the statistics have been given for each of the six years in order to show the continuous nature of the changes that have taken place, especially in high schools. These tables do not exactly correspond with those given in paragraph 160 of the last Review. Girls reading

in boys' schools were not included in them, and this omission was not compensated by the inclusion of the boys reading in girls' schools. In order to give a complete classification of scholars, I have included all the scholars in boys' schools, and in the chapter on female education similar statistics will be given for girls' schools. The number of girls in boys' schools is so small (less than one per cent.) that their inclusion does not materially affect the percentages.

The totals also differ slightly from those given in General Table III and in some of the tables of the present chapter; the returns of a few unaided schools do not show the classification of scholars according to stages of instruction, and in some provinces schools shown as training institutions in Table III have been treated as primary or secondary schools in Table V.

Stages of Instruction in Secondary Schools for Boys for the whole of India.

ENGLISH.

	1886-87.		1887-88.		1888-89.		1889-90.		1890-91		1891-92.	
	Number.	Percentage.	Number.	Percentage.	Number.	Percentage.	Number.	Percentage.	Number.	Percentage	Number.	Percentage.
High	38,196	14·1	43,153	15·2	51,447	17·4	52,968	17·7	55,871	18·8	57,460	19
Middle	89,484	33	92,678	32·6	97,303	32·9	100,415	33·5	97,286	32·8	98,673	32·7
Upper Primary	57,686	21·2	57,907	20·4	60,788	20·5	60,783	20·3	59,846	20·2	59,888	19·8
Lower Primary — Reading printed books	86,121	31·7	81,766	28·8	78,811	26·6	77,472	25·9	76,516	25·8	79,491	26·3
Lower Primary — Not reading printed books			8,236	2·9	7,803	2·6	7,740	2·6	6,901	2·3	6,451	2·1
TOTAL	271,487	...	283,740	...	296,152	...	299,378	..	296,420	...	301,963	...

VERNACULAR.

High	276	0·2	226	0·2	206	0·2	77	0·06	67	00·5	67	00·5
Middle	24,337	18·4	24,829	18·7	25,263	19·6	26,397	19	26,062	18·9	24,328	17·8
Upper Primary	30,485	23	29,861	22·5	29,356	22·8	31,029	22·3	30,553	22·1	29,180	21·3
Lower Primary — Reading printed books	77,631	58·5	65,496	49·4	61,017	47·4	63,664	45·7	64,116	46·4	67,589	49·3
Lower Primary — Not reading printed books			12,097	9·1	12,826	10	17,998	12·9	17,242	12·5	15,821	11·5
TOTAL	132,729	...	132,509	...	128,668	...	139,165	..	138,040	...	136,985	

Stages of Instruction in Secondary Schools for Boys for each Province.

ENGLISH.

Province.	1886-87.						1891-92					
	H.	M.	U. P.	L. P. (a)	L. P. (b).	Total.	H.	M.	U. P.	L. P. (a)	L. P. (b)	Total.
Madras	6,252	21,988	7,047	13,526	1,433	50,246	8,594	21,707	5,939	11,920	862	49,022
Bombay	12,376	18,910	1,443	2,365		35,094	15,408	19,725	1,667	2,434	134	39,368
Bengal	14,818	29,385	31,205	35,071	4,660	115,139	26,590	34,403	33,259	37,246	4,036	135,934
North-Western Provinces and Oudh	1,609	4,788	5,996	10,020	357	22,770	2,494	5,366	5,481	8,413	155	21,909
Punjab	1,323	6,113	8,048	9,722	756	25,962	2,007	7,547	8,401	12 205	324	30,484
Central Provinces	501	3,613	...	...	...	4,114	660	4,339	...	...	...	4,999
Burma { Lower	157	1,551	1,284	2,989	45	6,026	201	1,849	2,378	2,599	...	7,027
Burma { Upper	...	...	...	...	...	...	...	81	192	357	...	630
Assam	702	1,168	1,543	3,564	19	6,996	989	1,575	1,630	3,233	24	7,451
Berar	408	1,761	1,064	538	928	4,699	472	1,896	856	499	916	4,639
Coorg	50	207	56	128	...	441	45	185	85	185	.	500
Total	38,196	89,484	57,686	86,121		271,487	57,460	98,673	59,888	79,491	6,451	301,963
										86,942		

VERNACULAR.

Madras	...	476	390	1,832	341	3,039	...	621	563	2,482	684	4,350
Bengal	12	11,024	16,287	28,279	8,876	64,478	10	10,358	15,481	28,995	6,507	61,351
North-Western Provinces and Oudh	180	8,183	9,306	22,811	1,757	42,237	...	6,240	6,266	17,134	450	30,090
Punjab	84	3,823	3,566	9,759	815	18,047	56	4,101	3,081	10,083	904	18,225
Central Provinces	...	194	...	...	...	194	...	2,253	2,757	6,456	7,070	18,536
Lower Burma	...	149	197	673	260	1,279	.	167	391	1,021	.	1,579
Assam	...	488	739	2,070	158	3,455	1	588	641	1,418	206	2,854
Total	276	24,337	30,485	65,424	12,207	132,729	67	24,328	29,180	67,589	15,821	136,985

The first table shows that in English schools there has been a continuous increase in the number of scholars in the high department, both absolutely and relatively to the other classes. The total number of scholars has increased by 30,476, or 11 per cent., while the high departments have increased by 19,264, or 50 per cent. This increase is spread over all the provinces with the single exception of Coorg, in which the number of scholars is so small that no inferences can be drawn from a small increase or decrease. The greatest increase is in Bengal, where it amounts to 79 per cent., the North-Western Provinces and the Punjab coming next with 55 and 52 per cent., respectively. The Madras schools have gained 37, and the Bombay schools 24 per cent. The middle departments of secondary English schools have increased by about 10 per cent. but here the gain is less evenly distributed; from 1887 to 1890 there was a continuous and rapid increase, but in the following year the numbers fell off by 3 per cent., a part only of which was regained in 1892. Madras and Coorg show a slight decrease; in Madras this appears to be due to an alteration of the rules: before 1890 91 all class promotions were regulated by departmental rules, but they are now left to the discretion of the managers, and in consequence the promotions to the high stage have been more numerous. More than half of the total gain was in Bengal, but Assam shows the largest percentage (35) of increase. About one-third of the total number of scholars in secondary English schools are in the middle stage, and this proportion has varied very little during the last six years. The upper primary section has increased by nearly 4 per cent., while the lower primary classes have decreased slightly, especially those in which printed books are not used.

The total number of scholars in the secondary department of English schools has increased by 22 3 per cent. In 1887 this department contained 47·1 per cent. of the total number of scholars, while in 1892 it contained 51·7 per cent.

The case is very different in vernacular schools; here there is a decrease in the number of scholars in the secondary stages of instruction, although the numbers for the last three years include the schools of the Central Provinces, which were before classed as primary. If all the scholars above the upper primary standard in primary schools be added to those in middle schools, the decrease in the secondary section of vernacular schools amounts to 5·4 per cent. The ratio which the number of scholars in the secondary stage bears to the total number has fallen from 18·6 to 17·8. The decrease in the high stage is mainly due to the fact that the Oriental schools of the North-Western Provinces are not now classed as high schools, though some of them seem properly to belong to that grade; there is, however, a decrease of one-third in the number of scholars in this stage in the Punjab, which will be explained in a later paragraph. The decrease in the secondary department is confined to Bengal and the North-Western Provinces, but these two provinces contain two-thirds of the total number of scholars in that department. The changes in the various primary sections are too irregular for any conclusions to be drawn from them, the irregularity being in great measure due to the change of nomenclature of the schools in the Central Provinces.

Taking English and vernacular schools together the number and percentage in each stage are given in the following table:—

	1886-87.	1891-92.
High	38,472 9·5	57,527 13·1
Middle	113,821 28·2	123,001 28·
Upper Primary	88,171 21·8	89,068 20·3
Lower Primary	163,752 40·5	169,352 38·6

A comparison of these figures with those given in the last Review shows that the middle and upper primary sections contain nearly the same proportion, while the high stage has gained considerably at the expense of the lower primary stage.

91. Explanation of the Maps.—The two maps placed at the commencement of this chapter show the number of boys in the secondary stages, high and middle, or rather the percentage of that number to the total number of boys of school going age in each province. The figures on which they are based are given below: they differ from those of the preceding paragraph in consequence of the inclusion of boys in girls' schools and in primary schools:—

Province.	1886-87.		1891-92.	
	Boys in high and middle stages.	Percentage of colume (1) to the male population of school-going age (census 1881).	Boys in high and middle stages.	Percentage of column (3) to the male population of school-going age (census 1891).
	1	2	3	4
Madras	28,651	1·25	30,842	1·16
Bombay	31,247	1·74	34 986	1·68
Bengal	55,419	1 08	71,864	1·31
North-Western Provinces and Oudh	14,760	·42	14,100	·38
Punjab	11,343	·74	13,701	·81
Central Provinces	6,526	·75	7,232	·74
Upper Burma	...	...	81	·03
Lower Burma	1,823	·61	2,389	·64
Assam	2,358	·62	3,160	·75
Coorg	254	1·68	230	1·59
Hyderabad Assigned Districts	3,138	1 51	3,763	1·68

Five provinces out of ten show a decrease in the percentage, but in Madras, Bombay, and the Central Provinces this is due to the fact that the census figures for 1881 are used in the percentages for 1887: the effect of this has been explained in paragraph 6. In the North-Western Provinces and Coorg the decrease is real.

92. The Teaching of English in Secondary Schools.—The essential difference between English and vernacular schools is that in the former English is a compulsory subject, while in the latter, if it is taught at all, it is only as an optional subject. It does not, however, follow that every scholar in an English school is actually reading English; in some provinces the study of English is not commenced till the lower or upper primary stage has been passed, while in others English is taught from the lowest class.

This explains the great differences shown in the proportion of scholars learning English in different provinces shown in the following table:—

	Total number of scholars in secondary schools, English.	Number of scholars learning English.	Percentage.
Madras	49,022	45,927	93·7
Bombay	39,368	39,242	99·7
Bengal	135,934	114,796	84·4
North-Western Provinces	21,909	21,714	99·2
Punjab	30,540	19,118	62·6
Central Provinces	4,999	4,999	100·
Upper Burma	630	630	100·
Lower Burma	7,027	7,021	99·9
Assam	7,451	5,581	74·9
Coorg	500	500	100·
Berar	4,639	2,367	51·2
TOTAL	302,019	261,895	86·7

Every scholar in the Central Provinces, Upper Burma and Coorg, and every scholar in the high schools of Lower Burma and Berar, reads English, and there are very few exceptions in Bombay, the high schools of the North-Western Provinces and Assam, and in the middle schools of Lower Burma. The proportion of scholars reading English is lowest in the middle schools of Berar and the Punjab, because this subject is not commenced in the lower classes.

For the whole of India 86·7 of the scholars in English secondary schools are studying English; in 1886-87 the proportion was 85·6 per cent., the actual number being 232,366 out of 271,654. In order to obtain the total number of scholars in India who were reading English in 1891-92, we must add to the above number 9,697 scholars in vernacular secondary schools, and 54,174 scholars in primary schools, making a total of 325,766. Seven-eighths of the English-reading scholars of vernacular schools are in Bengal, the remainder being distributed over Madras, Burma, and the North-Western Provinces. The schools which furnished these scholars are all in the transition stage between middle English and middle vernacular, the English classes not being strong enough to justify their recognition as English schools. The teaching of English in primary schools does not properly belong to the present chapter, but I think it is desirable to refer to it here, as English is nowhere recognised as a part of the ordinary curriculum of primary schools. In Madras it is included among the optional subjects, and this province supplies 40,124 of the 54,174 scholars mentioned above. The primary schools of all provinces contain some scholars learning English, only a small number of them being Europeans or Eurasians. It is probable that a large number of Native Christians are included, but the returns do not furnish statistics on this point.

93. The Medium of Instruction in Secondary Schools.—The question whether English or the vernacular should be the medium of instruction in secondary English schools was fully discussed by the Education Commission (paragraph 250 of Report), but no definite recommendation was made. The question was afterwards referred to the various Local Governments, and a summary of their opinions is given in paragraph 162 of the last Review. The opinion of the Government of the North-Western Provinces was adverse to the retention of the vernacular as the medium of instruction in middle English schools, and in 1889 the curriculum in these schools was revised in accordance with this opinion. Since 1891 the Anglo-vernacular middle examination has

been conducted in English, instead of in the vernacular, and in the schools instruction in all subjects is now given in English. The course of instruction is so arranged as to lead up definitely to the Entrance examination, and middle English schools are now merely feeders of high schools. It is too early yet to form any opinion of the results of the change, as the schools are still in the transition stage. "Men, who for many years past have been teaching everything in the vernacular, cannot now express themselves in English as they formerly did, and the young men, who have been more recently appointed and whose own training was imparted to them under that retrograde system, are under the same difficulty. Neither students nor pupils can now speak to each other in the language with which, if they desire to prosper in life or take up any of the modern professions or carry their studies far enough to obtain a University degree, they must make themselves familiar." In the Central Provinces the new upper primary examination has led to a slight change in the opposite direction. Scholars are now required to remain a year longer in the primary, or vernacular, department, and so acquire a more thorough grounding in the vernacular and in general subjects before commencing the study of English. In Bengal both systems have been tried in high schools for the last fourteen years, but opinions are still divided as to their merits. In one division the vernacular system was tried, and resulted in a failure, but this is ascribed by the Director partly to the opposition of the head-masters, and partly to the inefficiency of the lower teachers employed. In another division the Inspector cites figures from the reports of the head-masters, proving the complete success of the system, so far as it can be tested by the results of the Entrance examination, by a comparison of boys prepared under the new system and under the old. In the last report, speaking of the same system, the Director says, "It is least thought of where it has been least tried. That it combines the elements of cheapness and soundness is not denied. The advantages of imparting a rudimentary knowledge of the principal subjects of study through one's mother-tongue are admitted by experienced educational officers, as well as by independent native gentlemen who have themselves received such a training in earlier days. But the system is distrusted as tending to retard progress in the English language; and it is therefore advisable that its adoption should be left to the good sense of the people themselves and not forced upon them by the Department." In another place the Director says:—"The question has acquired additional interest from the circumstance that in the Bombay Presidency, where the (vernacular) system does not exist, warm discussions have been going on in the newspapers as to the difficulties attending the compulsory study of all school subjects through English. A Bombay authority goes so far as to say that all subjects other than English 'should be taught through the medium of vernacular languages, and all examinations, even the highest University examinations, should be taken in the vernaculars.'" There is no allusion to the subject in the Bombay report.

The principal arguments for and against the system are given in the following note by the Inspector of Schools on a Resolution passed at a Conference held in Dacca in 1891 on the management of high English schools:—

"One of the arguments urged by those who are against the system of placing Entrance schools upon a vernacular basis, is that the study of history, geography, and mathematics through the vernacular retards the acquisition of a knowledge of the English language, which is of much greater importance than any other subject of study. This objection may be considered as groundless, because there is no doubt that boys are able to master what they have to learn in history, geography, and mathematics much more speedily and effectively if they learn those subjects in their vernacular than through the English language. The time and labour thus saved may very easily be devoted to a more thorough study of the English language.

"The second objection urged by them seems, however, to be more reasonable. It is to the effect that when an Entrance school is placed upon a vernacular basis, it requires a longer time for a student to come up from the beginning to the Entrance examination than if he had read in an entirely English school. The loss of one or two years which the former system entails is really objectionable. It seems to be due to the fact that, as the University does not allow a candidate to answer questions in history, geography, or mathematics in the vernacular, the students of a school placed upon the vernacular basis have at first to learn those subjects in the vernacular, and then to go over the same ground in English, in order to prepare themselves for answering questions in those subjects in the English language. So long as the University does not change the present rule, the real question for consideration is whether the study of those subjects at first in the vernacular and then in English, is really more effective and expeditions than if those subjects were learnt in English from the beginning. It was felt at the Conference that there has not yet been sufficient experience in the matter in the Eastern Circle to enable the members to express any decided opinion on the subject. The matter has therefore been left open."

94. Results of Examinations in Secondary Schools. High Schools.—For the great majority of high schools the final test is the matriculation examination of one of the Universities. In Madras and Bombay there is an alternative test, of a more practical kind, and in some provinces there is a separate final examination for European schools: these examinations will be described in later paragraphs. The courses prescribed by the different Universities are not quite uniform, and the passing standard also varies, but the differences are smaller than in any of the other examinations, either primary or secondary. The Madras University governs secondary education in Madras and Coorg, the Bombay University that of Bombay and Berar. The influence of the Calcutta University is spread over a larger area, for it includes the Central Provinces, Burma, Assam, and Ceylon. Some candidates from the North-Western Provinces and the Punjab also appear at the examination. The Allahabad University receives candidates from the North-Western Provinces, and it is probable that some at least of the schools in the Central Provinces will sever their connection with the Calcutta University and swell the numbers of the new University. The Punjab University receives very few candidates from other provinces. The native states of India usually send candidates to the examination of the nearest University; but here again the Calcutta University gets more than its share, for it receives a considerable number of candidates from Rajputana and Central India.

The following table shows the number of schools that sent up candidates to the examination in 1886-87 and in 1891-92 and the number of successful candidates.

Matriculation Examination.

Province.	1886-87. Schools under Public Management. Competing Schools.	Successful Candidates.	Aided Schools. Competing Schools.	Successful Candidates.	Unaided Schools, including Private Students. Competing Schools.	Successful Candidates.	Total. Competing Schools	Successful Candidates.	1891-92. Schools under Public Management Competing Schools.	Successful Candidates.	Aided Schools. Competing Schools.	Successful Candidates.	Unaided Schools, including Private Students. Competing Schools	Successful Candidates	Total. Competing Schools	Successful Candidates.
1	2	3	4		6	7	8	9	10	11	12	13	14	15	16	17
Madras	35	453	68	890	71	814	174	2,157	24	230	68	967	120	1,177	212	2,374
Bombay	29	267	30	166	5	83	64	516	36	426	37	231	20	236	93	893
Bengal	58	891	136	545	78	973	272	2,409	59	560	176	424	118	711	353	1,695
North-Western Povinces and Oudh	25	243	38	222	3	12	66	477	34	344	46	276	9	95	89	715
Punjab	(a)3	112	(a)10	64	(a)1	16	(a)14	192	23	286	35	205	8	128	66	619
Central Provinces	3	47	5	74	1	11	9	132	4	41	5	55	...	3	9	99
Upper Burma	...	...	...	...	...	...	...	...	...	...	...	...	...	.	...	..
Lower "	4	27	5	12	...	...	9	39	4	21	4	5	...	5	8	31
Assam	9	61	3	13	3	23	15	97	10	65	4	10	3	14	17	89
Coorg	1	8	...	.	...	...	1	8	1	4	1	3	...	...	2	7
Hyderabad Assigned Districts	2	11	...	...	...	...	2	11	2	19	...	.	...	4	2	23
Total	169	2,120	295	1,586	162	1,932	626	6,038	197	1,996	376	2,176	278	2,737	851	6,545

(a) Defective.

The figures given in the above table are not absolutely correct; in Madras and Bombay the statistics given in General Table VI include all schools that have sent up candidates to the examination, and therefore include some that are outside the limits of the province; in other provinces the figures refer only to schools that appear, or ought to appear, in the returns of the province, but in some cases the figures differ slightly from those given by the University. In consequence of this difference in the method of drawing up the tables, the candidates from Berar and Coorg have been counted twice in the general tables for the whole of India annually submitted to Government, once in the province to which they belonged, and once in the province in which they were examined: this mistake has been rectified in the tables of the present report, but I have not been able to ascertain how many schools and candidates belong to places beyond the control of the various Local Governments.

It may be remarked here that General Table VI is incomplete and unsatisfactory in many other ways. The provincial tables contain many obvious errors, but if they were complete and accurate, it would be impossible for any one to compile from them the table required by the Government of India, unless he was thoroughly acquainted with the educational system of every province The provincial reports, codes, etc., do not contain sufficient information for the identification of all the examinations of which statistics are given, many of which ought not to have been included in the table. In spite of every effort to check the figures by comparison with the University calendars, it is probable that none of the statistics relating to Arts colleges or schools for general or special instruction (*i.e.*, all the most important examinations) are accurate. A thorough revision and simplification of the table seems necessary, as well as detailed instructions regarding the mode of filling it up.

After the Entrance examination of the Punjab University had been held in 1886-87, it was discovered that some of the papers had been obtained by the candidates at two centres before the examination began; the examination at these centres was therefore cancelled, and a fresh examination held; the results of which were not known when the annual report was written: hence the returns for that year show only the number of schools sending up candidates to the Calcutta Entrance examination; the number of successful candidates has been taken from the report of the following year. A similar fraud was discovered at the Entrance examination of the Calcutta University in 1892; the question papers were stolen from the house of the officer in charge of the Patna centre. In this case the offender was discovered, and received a long term of imprisonment, which will probably put a stop to such frauds for some years. They have occurred very frequently during the last ten years, and on previous occasions the guilty persons have generally escaped detection.

The Madras tables do not separate girls' schools from boys' schools, hence both classes of schools have been included in one table.

A comparison of this table with that given in paragraph 84 shows that the number of competing schools exceeds the total number of high schools by 96; in Madras 120 unaided schools sent up candidates, but only 40 are shown in the returns; in the preceding year the excess of the number of competing schools over the number of unaided schools shown in the departmental returns was 55: this excess is explained partly by the inclusion of schools in Mysore and Travancore, and partly by the fact that the University rules admitted to the examination any candidate without any restriction as to the school where he was educated, so that many "private adventure" schools were started, and the great increase in 1891-92 is due to the fact that this was the last year in which a school could send up candidates to the examination, unless recognised by the Department as qualified to do so. In Bombay the number of schools under public management sending up candidates exceeds the number of such schools shown in

the returns by 6, but this is due to the inclusion of schools in Berar and in native states not under the control of the Department: the number of unaided schools is 20, while only 7 unaided high schools are shown in the returns · some of these are extra-provincial institutions; but some are schools classed by the Department as middle. In the North-Western Provinces also the number of unaided schools shown in this table is 9, while only 4 are shown in the returns; the reports do not explain the difference.

The total number of high schools under public management in 1891-92 was 208, including 7 schools for girls, and it appears that 197 schools sent up candidates for the examination The number of aided schools was 425, 66 of them being girls' schools, and 376 of these schools presented candidates. The majority of the schools that failed to present any candidates are schools recently raised in status, and therefore not having the full number of upper secondary classes. In girls' schools, and also in schools for Europeans and Eurasians, it very frequently happens that the high department is not strong enough to furnish a regular supply of candidates every year. About 23 per cent. of the pupils in the high stage of instruction in schools under public management appeared at the examination, and of these 52 per cent. passed; about 26 per cent. of the pupils in aided schools were presented, and the percentage of passes was 40. For the reason given above it is impossible to give, even approximately, the percentage of pupils presented in unaided schools, but the percentage of passes was 36; in addition to the scholars of high schools, 4,332 persons appeared as private students, of whom only 12 per cent. passed. The total number of candidates was 18,771, of whom 6,545, or 35 per cent., passed, or, if private students be omitted, 40 per cent. In all cases the percentages are higher than those shown in paragraph 163 of the last Review, but it would not be safe to conclude that the rise in the percentage indicated a real improvement in the schools. This is clear from the following table, which gives the total number of candidates, and the number and percentage of successful candidates of the five Universities for each of the six years from 1886-87 to 1891-92. The totals include candidates from Ceylon and from Native States of India that do not furnish returns, and therefore do not agree with those in the preceding table:—

Matriculation Examination.

University.	1886—87.			1887—88.			1888—89.		
	Candidates.	Passes.	Per Cent.	Candidates.	Passes.	Per Cent	Candidates.	Passes.	Per Cent.
Madras . .	6,455	2,165	33·5	6,721	1,963	29·2	7,433	1,854	24·9
Bombay .	2,452	527	21 5	3,012	823	27 3	3,478	914	26·3
Calcutta .	4,974	3,298	66·3	6,134	2,720	44·3	5,930	1,475	24·9
Punjab . .	928	162	17 5	941	215	22·8	880	328	37·3
Allahabad .	...	...	..	...	...	...	1,417	764	53·9
TOTAL .	14,809	6,152	41·5	16,808	5,721	34	19,138	5,335	27·9
	1889—90.			1890—91.			1891—92.		
Madras . .	7,203	1,611	22·4	7,081	1,648	23·3	8,029	2,381	29·7
Bombay .	2 875	746	25·9	2,957	744	25·2	3,030	916	30·2
Calcutta .	5,308	2,642	49·8	5,032	2,151	42·7	5,208	2,034	39 1
Punjab . .	879	397	45·2	909	343	37·7	993*	576*	58
Allahabad .	1,481	663	44 8	1,745	653	37·4	2,075	829	40
TOTAL .	17,746	6,059	34·1	17,724	5,539	31·3	19,335	6,736	34·8

* Incomplete.

This table shows that the percentage of successful candidates for all the Universities taken together has varied between the limits 27·9 and 41·5, which is much too wide a range to be explained by variations in the quality of the work done in the schools. The provincial reports contain many complaints about the variation of the standard of the examination, and the effect of even a slight variation upon the percentage is very much magnified by its influence upon teachers in the choice of candidates. For example, in 1887 the standard of the Calcutta Entrance examination was lowered, and the percentage of passes rose from 30·4 to 66·3; many candidates passed who were supposed by their teachers to have little or no chance of doing so, and as a natural consequence the test examinations held by them in the following years were less strict; this caused a large addition to the number of ill-prepared candidates, and in two years the percentage fell from 66·3 to 24·9; this made the teachers more strict in their choice of candidates for the next examination, and the number decreased by 600, while the percentage of passes was doubled. The same thing has happened in other Universities, but the fluctuations of the standard seem to have been most violent in Calcutta and the Punjab In some cases there are other disturbing causes: in 1891-92 the number of candidates in Madras increased by nearly a thousand; this was due to a change in the rules, restricting the examination to pupils of recognised schools, which induced a large number of private students and pupils of unaided schools to come up to the examination a year earlier than they would otherwise have done. Probably the rise in Bombay between 1886-87 and 1888-89 is due to a similar cause, the University School Final examination having been declared to be the test for admission to the public service from 1889.

It is impossible to compare the results of the other examinations for high schools, since the examinations are different for different provinces; the results will, therefore, be given in the paragraphs describing the examinations.

95. **Middle School Examination.**—The examinations included under this head are those which mark the final stage of the middle school course and the initial stage of the high school course. It has already been pointed out that the course of study in a high school differs in length in different provinces, the shortest course being two years, and the longest four years. As the final standard of a high school is nearly the same everywhere, being the matriculation examination, it follows that the middle school standard varies considerably, so that any comparison of one province with another would be useless. In some provinces, too, it is impossible to compare the results of the examinations held in 1891-92 with those of 1886-87, because in the interval radical changes have been made in the nature of the examination. These changes are indicated below:—

Middle School Examination (Boys).

Province.		1886-87. Schools under Public Management. Competing Schools.	Schools under Public Management. Successful Candidates.	Aided Schools. Competing Schools.	Aided Schools. Successful Candidates.	Unaided Schools including Private Students. Competing Schools.	Unaided Schools including Private Students. Successful Candidates.	Total. Competing Schools.	Total. Successful Candidates.
Madras	English	92	910	140	1,791	88	1,001	320	3,702
Bombay	English	29	157	19	33	51	56	99	(a)246
	Vernacular	788	641	27	28	139	328	954	(a)997
Bengal	English	9	26	383	653	57	115	449	794
	Vernacular	161	535	687	1,547	77	414	925	2,496
N.-W. P. and Oudh	English	37	538	63	353	14	258	114	(a)1,149
	Vernacular	406	1 306	31	62	13	290	450	(a)1,658
Punjab	English	63	613	26	272	14	127	103	1,012
	Vernacular	129	678	3	7	1	81	133	766
Central Provinces	English	36	251	16	139	4	19	56	(b)409
	Vernacular	...	...	...	...	6	23	6	(a)23
Lower Burma*		...	...	...	...	...	...	..	..
Assam	English	3	3	23	24	2	1	28	28
	Vernacular	15	33	44	82	2	5	61	120
Coorg	English	1	14	...	..	...	9	1	(a)23
	Vernacular	1	6	...	...	...	...	1	(a)6
Berar	English	24	128	...	...	...	..	24	128
Total	English	294	2,640	670	3,265	230	1,586	1,194	7,491
	Vernacular	1,500	3,199	792	1,726	238	1,141	2,530	6,066
GRAND TOTAL		1,794	5,839	1,462	4,991	468	2,727	3,724	13,557

* No examination was held during the year.

(a) Public Service Certificate Examination.

(b) Including 5 who passed the Public Service Certificate Examination.

Middle School Examination (Boys).

Province.		1891-92. Schools under Public Management. Competing Schools.	Schools under Public Management. Successful Candidates.	Aided Schools. Competing Schools.	Aided Schools. Successful Candidates.	Unaided Schools including Private Students. Competing Schools.	Unaided Schools including Private Students. Successful Candidates.	Total. Competing Schools	Total. Successful Candidates.
Madras	English(?)	...	...	...	...	...	...	...	(a)2,566
Bombay	Middle School	89	564	40	318	28	141	157	1,023
	Public Service Certificate Examination. 2nd grade	16	116	15	58	25	102	56	276
	Public Service Certificate Examination. 3rd "	738	905	28	52	85	345	851	1,302
Bengal	English	22	76	508	1,158	110	264	640	1,498
	Vernacular	155	350	703	1,146	97	286	955	1,782
N.-W. P. and Oudh.	English and Vernacular	362	1,724	81	443	15	342	458	2,509
Punjab		193	2,026	45	541	25	418	263	2,985
Central Provinces		36	215	19	149	2	17	57	381
Upper Burma		...	...	4	11	...	7	4	18
Lower Burma		17	140	19	123	16	37	52	300
Assam		15	51	48	147	9	16	72	214
Coorg(b)		...	...	...	...	...	...	...	...
H. A. Dists.	Middle School	24	177	...	...	...	...	24	177
	Public Service Certificate Examination. English	3	54	...	...	...	1	3	55
	Public Service Certificate Examination. Vernacular	50	349	...	...	...	8	50	357
Total		...	...	...	...	...	...	...	...

(a) Lower Secondary Examination.

(b) No examination was held during the year.

The Madras middle school examination of 1886-87 was a provincial examination, the test for admission to the lower grades of the public service and to high schools; the lower secondary examination, which has now taken its place is a local examination, and the certificate has been made of very little value, except to teachers. The nature of the changes will be explained in a later paragraph. This is sufficient to account for the large decrease in the number of passes. In Bombay there was no middle school examination till 1887-88; the examination shown in the table was that for admission to the public service; there are now three examinations, one for the award of scholarships tenable in high schools, and two for admission to the public service, each of the latter being sub-divided into English and vernacular. Neither of these examinations corresponds exactly with the middle school examination. In Bengal the examinations have not been materially changed during the last five years, and the number of passes is practically the same in both years, if the English and vernacular examinations are taken together. These examinations are the same in all respects, except that English is added to the course in one, and candidates who appear at the English examination may pass the vernacular examination if they fail only in English. The table shows that the number of passes in English has nearly doubled. In the North-Western Provinces the decrease in the number of passes is due to the fact that the English examination is now conducted in English, instead of in the vernacular. In these Provinces the middle examination, English or vernacular, is the lowest qualification for appointment to posts of the value of R10 a month or upwards in the public service. In the Punjab the standard of the examination has been slightly lowered, but not sufficiently to account for the large increase in the number of successful candidates. In the Central Provinces the examination is now the test for admission to posts the pay of which is from R15 to R30 a month; formerly a separate examination was held. In Burma the examination is known as the Seventh Standard examination, and is conducted by the Educational Syndicate, the examinations of the eighth and all the lower standards being conducted by the Department. This examination is now the lowest educational test for the lower grades of clerkships, but formerly a pupil who had passed the upper primary examination could with little trouble secure a clerkship on from R50 to R100 a month. In Assam the examination is on the same lines as in Bengal; the number of successful candidates has increased by about 50 per cent., both on the English and on the vernacular side. In Berar the figures given in the table refer to the highest class of the middle schools, and do not include the special examination held to admit candidates to the high schools, though the latter more closely resembles the middle school examination of other provinces. For this examination there were 201 candidates, of whom 145 passed. There is a separate public service certificate examination. In Coorg a "Lower Secondary" examination was established in January 1892 as a test for the promotion of scholars to the upper secondary or high department, and this examination has also been made a test for appointment to posts of the value of R15 and upwards. No examination was held under the new rules in 1891-92.

96. Expenditure in Secondary Schools for Boys, English.—The next table gives the total expenditure on schools for this class in 1886-87 and in 1891-92, and the principal sources from which it was met:—

Expenditure in Secondary Schools for Boys, English, 1886-87 and 1891-92.

Province.	1886-87. From Provincial Revenues. In Schools under Public Management.	1886-87. From Provincial Revenues. In Aided Schools.	1886-87. From Local and Municipal Funds.	1886-87. From Fees.	1886-87. From other Sources.	1886-87. Total.	1891-92. From Provincial Revenues. In Schools under Public Management.	1891-92. From Provincial Revenues. In Aided Schools.	1891-92. From Local and Municipal Funds.	1891-92. From Fees.	1891-92. From other Sources.	1891-92. Total.
	R	R	R	R	R	R	R	R	R	R	R	R
Madras	82,889	97,900	1,00,779	6,52,662	3,08,685	12,42,915	92,233	1,11,095	95,843	6,72,176	3,44,364	13,15,711
Bombay	1,21,461	1,63,847	42,730	4,35,020	2,48,157	10,11,215	1,47,184	1,36,650	49,660	6,56,608	3,71,978	13,62,080
Bengal	1,55,816	2,61,985	44,166	11,08,245	5,90,614	21,60,826	1,63,396	1,63,229	1,58,649	15,14,258	5,96,936	25,96,468
North-Western Provinces and Oudh	10,370	68,033	2,41,187	1,73,966	1,76,766	6,70,322	5,474	69,356	2,55,825	3,16,801	1,58,487	8,05,943
Punjab	19,397	64,082	1,97,254	1,26,184	84,808	4,91,725	13,233	78,222	1,97,490	2,68,486	1,15,494	6,72,925
Central Provinces	45,533	12,830	20,346	20,567	17,510	1,16,786	34,633	15,930	30,614	31,888	24,667	1,37,732
Burma — Upper	...	...	...	...	...	...	...	2,249	720	6,146	10,994	20,109
Burma — Lower	22,869	16,295	1,08,068	63,271	54,869	2,65,372	37,029	13,119	89,576	1,24,330	67,313	3,31,367
Assam	23,525	...	18,227	52,383	24,636	1,18,771	28,024	...	18,800	66,095	18,592	1,31,511
Coorg	8,061	1,579	383	4,790	...	14,813	5,967	1,200	121	5,814	433	13,535
Hyderabad Assigned Districts	65,702	...	291	11,884	353	78,230	60,195	...	270	18,447	1,069	79,981
Total	5,55,623	6,86,551	7,73,431	26,48,972	15,06,398	61,70,975	5,87,368	5,91,050	8,97,568	36,81,049	17,10,327	74,67,362

During the five years the total cost of maintaining the schools has increased by R12,96,387, or 21 per cent., though the number of schools has increased only by 10, and of scholars by 11 per cent. The total cost to provincial revenues has fallen by R63,756, a little over 5 per cent. Under the head of schools managed by Government there is an increase of R31,745, but from this should be deducted a grant of R31,680 to the boys' department of the Lawrence Asylum, Ootacamund, which in 1886-87 was paid from Imperial revenues, and therefore did not appear in the educational expenditure. Hence the amount paid by Government for the maintenance of its own schools is practically unchanged, though the number of schools has increased by 20, and the number of scholars in them by over five thousand. The grants from provincial revenues to aided schools have decreased by R95,501, mainly because of the transfer of the control of middle schools in Bengal to District Boards.

Taking local and municipal funds together there is an increase of expenditure amounting to R1,24,137, or 16 per cent. Bengal contributes R1,14,483 out of this increase in consequenee of the transfer just referred to. In the North-Western Provinces there is an increase of over R14,000 entirely from municipal funds; and the Central Provinces and Bombay contribute about R10,000 and R7,000 respectively. In Lower Burma there is a decrease of over R18,000 in the municipal expenditure, which has been explained elsewhere. In the aggregate the municipal expenditure has decreased by R6,896, while the local fund expenditure has increased by R1,31,033.

The total contribution from local funds now amounts to R4,36,903, and that from municipal funds to R4,60,665.

Under the head of fees there is an increase of R10,32,077, or 39 per cent. This increase is common to all the provinces, and is everywhere proportionately greater than the increase in the number of scholars. In the Punjab the fees have increased by 113 per cent. and the scholars by 18 per cent. In Lower Burma the percentages are 97 and 16 respectively; and in the North-Western Provinces a decrease of 4 per cent. in the number of scholars is accompanied by an increase of 82 per cent. in the expenditure from fees. Madras shows the smallest rate of increase, 3 per cent., but the scholars have decreased by 2 per cent. There is also an increase of R2,03,929, or 14 per cent. "from other sources," that is, subscriptions, endowments, etc.

Grouping together provincial revenues, local and municipal funds, there is a total increase of only 3 per cent. from public funds, while private funds show an increase of 30 per cent. The percentage of the total cost met from private sources in each province is shown in the following table:—

	1886-87.	1891-92.
Madras	77	77
Bombay	68	76
Bengal	79	81
North-Western Provinces	52	59
Punjab	43	57
Central Provinces	33	41
Upper Burma	...	85
Lower Burma	45	58
Assam	65	64
Coorg	32	46
Berar	16	24
TOTAL	67	72

The very high percentage in Upper Burma is explained by the fact that there are as yet no schools managed by Government. In high schools the expenditure from private sources amounts to three-fourths of the total expenditure, while in middle schools it is only two-thirds.

In Madras the increase of the Government expenditure is entirely due to the Lawrence Asylum above mentioned. In Bombay the expenditure on the 19 high schools managed by the Department has increased by about a quarter, though the number of scholars in them has decreased. The expenditure on Government middle schools has decreased, but not in proportion to the reduction in the number. The grants to aided schools were much less than in 1886-87, but in that year the expenditure was abnormal, as it included a large amount belonging to the previous year. In Bengal, too, an increase in the cost of Government schools has accompanied a decrease in their number, the amount of the increase being about 5 per cent. The large decrease in the grants to aided schools has already been explained. In the North-Western Provinces most of the schools managed by the Department draw their funds from local sources; the expenditure from provincial revenues practically represents the cost of a single school. Departmental grants to aided schools have remained almost stationary, but there is a very large increase in the fee receipts. In the Punjab the number of Government schools has been reduced by one-third, and the expenditure on them in the same proportion. The number of aided schools has largely increased, and so also have the grants to them. In the Central Provinces the decrease in the expenditure under the first head is due to the transfer of schools to local management, the number of aided schools and the amount of aid given have both increased by about one-fourth. In Lower Burma, though the number of Government schools is unchanged, the number of scholars has increased fourfold, and the expenditure has considerably increased; aided schools have received smaller grants from Government and from municipal funds, but the fees in them have nearly doubled. In Assam the increase in the cost of Government schools is mainly a matter of accounts, due to the transfer of certain charges from local funds to provincial revenues: all grants to aided schools are paid from local funds. In Berar all the secondary English schools are managed by Government, and the decrease in the provincial expenditure is due to the increase of the fee receipts. In Coorg there is only one Government school, the cost of which has decreased by one-fourth.

Taking all the provinces together, 16 per cent. of the total expenditure was paid from provincial revenues against 20 per cent. in 1886-87; 12 per cent. from local and municipal funds against 12½; 49 per cent. from fees against 43, and 23 per cent. from other sources against 24½.

97. Expenditure in Secondary Schools for Boys, Vernacular.—The following table shows the expenditure from different sources on vernacular secondary schools in all the provinces where they are found :—

Expenditure in Secondary Schools for Boys, Vernacular, 1886-87 and 1891-92.

Province.	1886-87. From Provincial Revenues. In Schools under Public Management.	1886-87. From Provincial Revenues. In Aided Schools.	1886-87. From Local and Municipal Funds.	1886-87. From Fees.	1886-87. From other Sources.	1886-87. Total.	1891-92. From Provincial Revenues. In Schools under Public Management.	1891-92. From Provincial Revenues. In Aided Schools.	1891-92. From Local and Municipal Funds.	1891-92. From Fees.	1891-92. From other Sources.	1891-92. Total.
	R	R	R	R	R	R	R	R	R	R	R	R
Madras	...	3,233	3,723	3,576	3,221	13,753	8,680	2 484	6,341	4,967	2,038	24,510
Bombay	...	...	...	...	...	...	...	...	...	...	...	...
Bengal	44,584	1,14,037	12,629	1,61,611	1,12,490	4,45,351	9,241	46,395	1,16,707	1,76,538	1,09,964	4,58,845
North-Western Provinces and Oudh.	2,204	1,200	1,58,348	20,615	15,764	1,98,131	...	...	1,46,600	37,787	3,908	1,88,295
Punjab	...	...	90,077	14,214	5,121	1,09,412	...	...	86,944	30,792	732	1,18,468
Central Provinces	...	...	...	...	...	...	13,172	2,072	49,393	7,923	5,924	78,484
Burma — Upper	...	...	...	...	...	...	...	...	...	...	...	...
Burma — Lower	...	1,100	12,865	202	...	14,167	...	496	4,318	...	..	4,814
Assam	8,622	...	6,404	8,504	5,168	28,698	8,463	...	6,314	8,858	4,483	28,118
Coorg	...	...	...	...	...	...	...	...	...	...	...	...
Hyderabad Assigned Districts.	...	...	...	...	...	...	...	...	...	...	...	...
Total	55,410	1,19,570	2,84,046	2,08,722	1,41,764	8,09,512	39,556	51,447	4,16,617	2,66,865	1,27,049	9,01,534

The total cost of these schools has increased by ₹92,022, or 11 per cent., while the number of schools has increased by 2 per cent., and the number of scholars by 3 per cent. The total cost to provincial revenues has apparently decreased by ₹83,977, but really by about a lakh of rupees, for the expenditure of ₹15,244 in the Central Provinces is not new, but simply transferred from the head of expenditure on primary education. This decrease is almost entirely due to the transfer of the funds for the support of middle schools in Bengal to district boards, the only other change of any importance being an increase in the Government expenditure in Madras, because the training schools and the attached practising schools were taken over by Government from the local boards.

The total expenditure from local and municipal funds has increased by ₹1,32,571, or 47 per cent.; this is due to the transfer of middle schools in Bengal, and the inclusion of the schools in the Central Provinces.

The following table shows the percentage of expenditure from private sources, fees, subscriptions, etc., in each province:—

	1886-87.	1891-92.
Madras	49	29
Bengal	62	62
North-Western Provinces	18	22
Punjab	18	27
Central Provinces	...	18
Lower Burma	1	...
Assam	48	47
TOTAL	43	44

There is an increase of ₹58,143, or 28 per cent., in the amount realised from fees, the highest rate of increase being in the Punjab, where the total has been more than doubled. On account of the fluctuating character of these schools, it is unnecessary to enter into the details of the expenditure as fully as in the case of English schools.

In 1891-92 the average cost of maintaining a high school was ₹6,753; in middle English schools the average was ₹1,324, and in middle vernacular schools ₹476. The average cost of educating each pupil was ₹31 in high schools, ₹17 in middle English schools, and rather less than ₹7 in middle vernacular schools.

98. Secondary Education in Madras.—In paragraph 168 of the last Review Sir Alfred Croft described the changes made in the middle school examination in order to give effect to the recommendation of the Education Commission (V. 1), and added "it is intended, in order to render the scheme of bifurcation complete, to prolong the 'modern side' into the high school, since the middle school standard is considered too low to serve as the final stage of general education, even for those who are to follow industrial and commercial pursuits. It is, however, believed that the co-operation of the University is necessary before any radical change can be effected in high schools." In July 1887 the Director of Public Instruction submitted proposals for the institution of a high school examination on the same lines as the middle school examination, but involving a three years' course of study after passing that examination. In order to induce schools to take up the course of study prescribed for this examination instead of the matriculation course, it was proposed that the new examination should be the sole avenue to the "superior" appointments of the public service, except in the case of appointments of the value of ₹250 or upwards, which might be

given to graduates. These proposals, and others connected with them, were referred to a committee composed of representative educationists, and the draft rules framed by them published in the Gazette, in order that opportunity might be given for the expression of public opinion. The rules were very freely criticised by the Senate of the University, the Madras Graduates' Association, the Executive Council on Aided Education, and other bodies and individuals. On one point there was complete unanimity of opinion, the inadequacy of the matriculation examination as a test of the qualification of candidates for admission either to the public service or to the University itself, although the number of failures at the examination (about 75 per cent. on the average of the last few years) showed that the examination was much above the standard of the candidates. The opinion was almost equally universal that the non-recognition of the University examinations as qualifying for admission to the public service would check the spread of, if not absolutely annihilate, University education. The name "High School Examination" was objected to on similar grounds, as implying that schools preparing candidates for the matriculation examination were not high schools. The Senate of the University expressed the opinion that the "combination proposed of a test for high schools with the public service test will in reality be injurious to technical education itself." The Graduates' Association objected to the inclusion among the compulsory subjects of special tests of the fitness of candidates for the public service, such as précis writing, forms of official correspondence, etc. Opinions were divided on the question whether the examination, if established, should be conducted by the University or the Department, but on this point the Local Government unhesitatingly stated that it would not hand over the conduct of the new examination to the University, as this would involve the complete abandonment of the control of secondary education, and also of the system of Government examinations in Science, Art, and Industries. After considering all the opinions the scheme was finally adopted by Government on the 20th June 1889, but with some modifications. The First Arts examination of the University was recognised as qualifying for admission to the superior branches of the public service, equally with the new examination; the name of the examination was changed to "Upper Secondary," and the special tests above referred to were omitted. The following are the branches comprised in the scheme of examination, as originally sanctioned:—

Compulsory Branches.

I. English.
II. Second Language.
III. Mathematics.
IV. History and Geography.

Optional Branches.

1. Mathematics.
2. Practical Geometry.
3. Mensuration.
4. Hydraulics and Hydraulic Engineering.
5. Building Materials and Construction.
6. Plan-drawing from Specification and Estimate-making.
7. Surveying and Levelling.
8. Earth-work and Road-work.
9. Bridge-making.
10. Mechanical Drawing.

11. Heat and Light.
12. Inorganic Chemistry.
13. Physiography.
14. Agriculture.
15. Animal Physiology.
16. General Biology.
17. Veterinary Surgery and Medicine.
18. Botany.
19. Forestry.
20. Hygiene.
21. Drawing.
22. Modelling.
23. Wood and Copper-plate Engraving and Etching.
24. Printing.
25. Book-keeping by single and double entry.
26. Phonography.
27. Annuities and Life Insurance.
28. Correspondence and Business Transactions.
29. Banking and Political Economy.

The four compulsory branches are all included in the matriculation course, which also includes elementary Physics and Chemistry. In each branch a larger amount of work is required than for matriculation, both on account of the greater range of the subjects, and because the marks required for a pass are higher. In the matriculation examination the pass-marks are 33 per cent. in English, and in the second language, if a vernacular, and 25 per cent. in other subjects, with 33 per cent. in the aggregate. In the new examination the pass marks in English are 40 per cent., in other compulsory subjects 35 per cent. and in the aggregate 40 per cent., besides which a minimum of 50 per cent. is required in the tests of spelling, hand-writing, and translation, or advanced composition in the case of European and Eurasian candidates. The course in each of the optional branches is the same as that for the "Preliminary Higher Examination in Science, Art, and Industries," which will be referred to in the chapter on technical education. In order to be counted as a "passed candidate," and obtain a certificate qualifying for admission to the public service a candidate must pass in the four compulsory subjects, and in three of the optional subjects, and must take a vernacular of Southern India as his second language. The optional subjects may be taken up at a subsequent examination, and a candidate who has taken up any language other than a vernacular (Sanskrit, Persian, Latin, French, or German) may afterwards present himself for examination in a vernacular.

The first examination under these rules was held in May, 1890; for the compulsory subjects, 139 candidates registered their names, but only three passed in all the subjects. The Director says: "The high standard set up by the Board and the poor attainments of the candidates, many of whom had presumably tried their hands and failed at the Matriculation examination, afford sufficient explanation of this failure. Time is needed to enable schools to come up to the requirements of the new examination." Sixteen candidates were examined in one only of the compulsory branches, of whom seven passed. In the following year the results were even worse: out of 35 candidates for the complete test, not one passed, and out of 53 who appeared for examination in one or more branches, only 12 passed. Only 6 per cent. passed in English, 13 in a vernacular, 7 in mathematics, and 12 in history and geography. Of the 12 candidates who

passed in individual branches, 6 were females. These results appear very unsatisfactory, but it must be remembered that the Upper Secondary examination course is intended to take three years, while the second examination was held within two years after the promulgation of the rules.

Although it is too early to form any opinion about the ultimate success of the upper secondary examination, some indirect results of its establishment are already apparent. The University has been forced to raise the standard of its matriculation examination by putting the pass-marks in each subject on a level with those of the upper secondary examination, and by adding to the course in mathematics. The practice of prescribing text-books in English has also been abandoned, so as to check "cram" as much as possible. The University has also adopted the very important principle that no candidate, except under special circumstances, shall be admitted to the matriculation examination unless he has studied for at least one year in a recognised high school. The privilege of recognition is granted by the Department and not by the University, except in the case of schools in Native States or outside the Presidency. The conditions of recognition are laid down in the Educational Rules; they require that at least half of the regular staff of a school, excluding teachers of special subjects, should be certificated, or have had a certain number of years of approved service in recognised schools; and that at least one regular teacher should be appointed for every fifty scholars on the rolls. The accommodation, sanitary arrangements, furniture, and apparatus must be approved by the Department; and definite rules regarding the admission and withdrawal of scholars must be observed. Schools that have not been recognised cannot send up candidates to any public examination; hence, it is in the power of the Department to force the managers of an unaided school either to render it efficient or to close it. In the report for 1891-92 the Director writes:—"Nothing has proved so injurious to the cause of Upper Secondary education as the indiscriminate opening of Upper Secondary schools without an efficient staff and proper equipments, and one important effect of the working of the system of recognition with reference to the Educational Rules has been the weeding out of some of the ill-conducted Upper Secondary schools. Hence, it is not surprising that there was a decline from 149 to 136 in the number of Upper Secondary schools. Even out of the 136 schools, only 108 had been recognised on the 31st March, and of the remaining schools that were not recognised, there are, I doubt not, a few that, under the stringent working of the recognition system will not continue as Upper Secondary schools." Only two of the 40 unaided schools fulfilled the conditions for recognition.

In the same orders of the 20th June 1889, the Government of Madras decided "that the Middle School examination shall cease to qualify for admission to appointments in the public service classed as 'Superior.'" The reasons assigned were "the injurious effect exercised by a great public examination which is compulsory on all boys at the age of 12 or 13," and 'that it carries bifurcation too low down, *viz*, into the lower secondary classes, the recommendation of the Education Commission having referred only to upper secondary education." At the same time the examination ceased to be compulsory as a test for admission to the upper secondary departments of schools, though under the name of the "Lower Secondary Examination" it was retained as a final test for middle schools, and for some of the grades of teachers' certificates.

The public character of the examination, and therefore also a great part of the value of the certificate, were taken away by the transfer of the management of the examination from a central board of examiners to local committees, by whom the examination is generally conducted *vivâ voce*. The technical side

was separated from the general side, and made a part of the scheme for higher examinations in Science, Art, and Industries.

99. **Secondary Education in Bombay.**—The most important event in the history of secondary education in Bombay during the last five years is the establishment of the University School Final examination. The Government of Bombay considered that it would be impracticable to give effect to the recommendation of the Education Commission regarding the bifurcation of studies in high schools without the co-operation of the University. This co-operation was accordingly sought, and the first steps were taken by the University in 1886; the bye-laws relating to the new examination were not finally sanctioned till 1887, and the first examination was held in 1889. Although the examination is conducted by the University, it is not in any way connected with University education, for the certificate of passing it does not qualify for admission to the higher examinations of any Faculty: it is merely a "final" examination for high schools, as far as the University is concerned, but it has been adopted by the Government of Bombay as a test of the eligibility of candidates for admission into the lower grades of the public service. The list of subjects prescribed for the examination is as follows:—

Compulsory subjects.

1. English.
2. French, German, Latin, Portuguese, or an Indian vernacular.
3. Arithmetic.

Optional subjects.

Either two or three optional subjects must be taken up:—

1. English.
2. A second language, either French, German, Portuguese, Persian Arabic, or an Indian vernacular.
3. History and Geography.
4. Mathematics.
5. Natural Philosophy, including Chemistry, and *either* the elements of Statics, Dynamics, and Hydrostatics *or* the elements of Heat *or* the elements of Electricity and Magnetism.
6. Biology, including *either* the elements of Zoology and Animal Physiology, *or* the elements of Botany and Vegetable Physiology.
7. Outlines of Political Economy.
8. Agriculture.
9. Drawing, including Geometrical drawing and linear perspective, and drawing from the flat and from models.

The matriculation course includes four compulsory subjects—

1. English and a second language.
2. Mathematics, including Arithmetic, Algebra, and Euclid.
3. Elementary History and Geography.
4. Elementary Science, including Statics, Chemistry and Astronomy.

The object of Government in proposing the scheme to the University was "to organize a modern side in high schools," but a comparison of the subjects for the two examinations shows that the University has given teachers an opportunity of making the course of instruction much less "modern" than it was before. The first three optional subjects contain nothing of a scientific or

practical character, except a little physical and commercial geography, and even this may be avoided, as only two optional subjects must be taken up. The annual reports of the Department and the University do not show the number of candidates taking up each of the optional subjects; hence, it is impossible to say whether the institution of the new examination has resulted in an extension of instruction in Science and Art, although a large number of candidates have appeared at the examination. It is probable that a considerable number of the candidates will eventually take up the non-literary subjects, for the certificate of passing the examination does not qualify the holder for an appointment in the public service unless it shows that he has passed in two out of the four subjects, Natural Philosophy, Biology, Agriculture and Drawing. The public service rules of Bombay go much farther than those of Madras; in the latter province the First Arts examination of the University is treated as equivalent to the Upper Secondary examination, while the matriculation examination qualifies for lower appointments: in Bombay from the date of the first University School Final examination the Arts examinations of the University ceased to qualify for any of the appointments recognised in the rules. In consequence of this the Bombay examination has attracted candidates much sooner than the Madras one; in the first year there were 505 candidates, of whom 146 passed; in the next two years the number of candidates rose to 820 and 1,267, and the number of those who passed to 331 and 364. About half of the candidates were private students.

Before the new examination was instituted agriculture and drawing formed a part of the recognised course of instruction in some of the high schools. In 1886-87 seven of the Government high schools contained agricultural classes, the students of which went through a practical course of work on farms attached to the schools. The course of instruction lasted two years, and led up to the lower classes of the College of Science, Poona. The nature of the course will be described in the chapter on technical education. In 1886-87 100 students were examined in the first year's course, of whom 70 passed, and 12 out of 18 passed in the second year's course. In 1891-92 the number of high schools containing agricultural classes was only four; 47 first year and 6 second year students were examined, of whom 37 and 4 passed. An agricultural model farm has also been established in connection with the Bhavnagar high school, and an herbarium in the Navanagar high school, where the headmaster takes his pupils on botanical excursions. Both of these schools are in the Kathiawar Native States.

All the Government high schools and many other schools, both high and middle, contain drawing classes, the students of which are annually examined by the staff of the Sir Jamsetji Jijibhoy School of Art. In 1886-87 the number of students in general schools learning drawing was 1,474, but in 1891-92 the number had increased to 11,199. In the former year the number of candidates for drawing certificates was 808, of whom 273 obtained the first-grade or lowest certificate, and one the third-grade or highest certificate. In 1891-92 the number of candidates for first-grade certificates was 1,752, of whom 469 were successful; 220 competed for, and 71 obtained second-grade certificates, and 1 out of 13 obtained a third-grade certificate, in addition to these 11 candidates were examined in blackboard drawing, of whom 1 passed. The following remarks are taken from the report on the drawing classes by the Principal of the School of Art: "The conclusions arrived at by me are that drawing is considerably handicapped, owing to its being made voluntary, to fees being charged for learning, and to the classes meeting either before or after school hours. A knowledge of drawing is just as important to most of the boys who attend school as that of reading and writing, and this fact has been recognised by nearly every State in Europe, so that the subject has been made compulsory

and incorporated in the standards. The general complaint made to me was that it was difficult to get boys to take up drawing, it being a voluntary subject, and an extra fee was levied for learning. I found that some of the drawing classes were in a more flourishing condition than others owing to the personal interest taken by the Headmaster in the encouragement of drawing, a matter of considerable moment where the subject is voluntary. Success, too, depends upon the teacher. A good teacher with poor appliances will turn out better results than the less-gifted teacher with good examples and well-found accommodation. If the drawing master is a man of resource, he never need be at a loss for examples, as every Indian bazar is teeming with specimens of local art which form admirable examples for teaching drawing." The good effect of these annual examinations in drawing is not confined to the Presidency of Bombay; the list of candidates includes many from schools in Native States and in the Central Provinces. In the Presidency grants are given to aided schools on account of every pupil who passes in drawing, and in order to encourage teachers in all classes of schools and colleges to study the subject and teach it, a reward of R100 is given annually to every teacher who holds a second-grade certificate, provided ten of his pupils obtain the first-grade certificate; for teachers holding the third-grade certificate the reward is R150.

Another instance of the extension of the benefits of Government institutions beyond the sphere for which they were originally intended may be quoted from the report for 1891-92. The Government high school at Surat has been provided with a good laboratory, and the teachers of the school have given a series of lectures on scientific subjects to the masters and assistants of the vernacular schools of the city.

100. Secondary Education in Bengal.—In Bengal, as in Madras, much injury has been done to the cause of secondary education by the indiscriminate opening of high schools. In the report for 1887-88 the Director writes: "The unnecessary multiplication of high schools in Calcutta and other towns is an evil, the magnitude of which can hardly be measured. The number of these schools is now far beyond the needs of the community, and many of them are started as purely money-making speculations. Boys are bribed to join them, to the injury of older and more respectable institutions; by the appointment of ill-qualified or inexperienced masters the standard of education is degraded; and by a lax system of discipline the standard of morality also. The inter-school rules go some way to check unscrupulous managers, but they now give the latter too much power, and a boy, once joining such a school, often finds that he is caught as in a trap. Many of these schools, especially in mofussil towns, are held in unsuitable buildings, and have no books of reference and no proper supply of furniture. It may be assumed that under the operation of the ordinary laws of demand and supply, the trade of school-making will soon reach a point at which it ceases to be profitable; but the loss in power and efficiency during the transition stage is a very serious evil. No orders of the Government can of course prevent the opening of a school of any description; it is the University alone that can check the evil by declining to recognise a school that does not satisfy certain conditions." During the last five years this question has been discussed repeatedly by the Senate, and several changes have been made in the University regulations to check the growth of inefficient schools. Before a school is recognised it must be certified by a Government Inspector of Schools to have the means of teaching up to the Entrance standard, and this certificate may be withdrawn by the Inspector if an efficient staff is not maintained; the school may be struck off the list if the results of the Entrance examination are bad year after year. In order

to meet the case of those schools that are obviously started in opposition to an existing school for the sole purpose of injuring it, the Syndicate were authorised to refuse to recognise any school "which appears to be from any cause injurious to the interests of sound education and discipline." In the beginning of 1891-92 the Senate appointed a committee to revise all the rules relating to the recognition of schools, but the report of the committee was not adopted by the Senate till after the close of the period under review. The new rules are very similar to those of Madras, referred to in a preceding paragraph. The Syndicate have already disqualified several schools for repeated failure to pass a reasonable proportion of candidates at the Entrance examination, and it is believed that this will have the effect of gradually weeding out the inefficient schools. There is no doubt that it has prevented a large rise in the number of Entrance candidates.

Very little has yet been done in Bengal towards carrying into effect the recommendation of the Education Commission for a bifurcation of studies in high schools. It was stated in the last Review that the Government of Bengal was of opinion that nothing effective could be done without the assistance of the University, and that the Senate rejected the proposal for an alternative Entrance examination, but introduced a little elementary science into the course, and made drawing an extra and voluntary subject, the marks gained in it not counting towards a pass. The position thus assigned to drawing offers no inducement to candidates to take it up as a regular branch of study, and the number of passes is very small. In 1890 167 candidates were examined, and 20 passed; in 1891 23 passed out of 252, and in 1892, 24 out of 263. These figures include a large number of candidates from other provinces, especially the Central Provinces; for Bengal alone the passes were 12, 8, 9, in the three years, about a third of these belonging to schools for Europeans and Eurasians. Drawing classes were established in the beginning of 1890 in three of the Government high schools, under teachers trained in the Government School of Art, but the number of students who jointed them was very small, and only five of them passed the examination in three years. In order to give greater encouragement to the study of this subject the Government of Bengal in 1891-92 ordered that the marks gained in drawing should be taken into consideration in awarding Government junior scholarships. The Local Government also sanctioned the appointment of drawing masters in first grade training schools, in order to train a large number of qualified teachers of drawing for middle schools, in which the subject will be eventually introduced. This scheme, however, cannot be carried into effect at once; the number of teachers trained in the School of Art is small, and it will be some time before a sufficient number can be obtained for all the schools where they are required. In 1892 eight training schools and nine high schools were provided with drawing masters, the same teacher, in some cases, visiting two or three schools.

In 1891 another attempt was made by the Local Government to induce the University "to widen the course for matriculation by the introduction of alternative subjects designed to facilitate the studies of candidates intended for professional careers." A committee appointed by the Faculty of Arts drew up a scheme, the main features of which were that candidates should be allowed the option of taking up a scientific subject in place of the second language and either translation into a vernacular or history, and that book-keeping and shorthand should be introduced as optional subjects. This scheme was adopted by the Faculty in March 1892, but it was afterwards thrown out by the Syndicate after obtaining the opinions of the heads of schools and colleges; in place of this scheme the Syndicate proposed that elementary mensuration should be made alternative with a portion of Euclid, but this proposal was afterwards rejected by the Senate.

In the middle schools, both English and vernacular, science forms a regular part of the curriculum. The middle scholarship examination is the final test of both classes of schools, and includes Mensuration of plane surfaces, Sanitation, and either Botany, Chemistry, or Natural Philosophy. In the high schools that have been placed on a vernacular basis, the middle departments are treated as middle schools, and the scholars compete at the middle scholarship examination. In other high schools the pupils are not allowed to compete for scholarships at the departmental examinations, and as the course of instruction is based entirely upon the Entrance standard, there is no instruction in science beyond the small amount required by the University.

101. Secondary Education in the North-Western Provinces.—In a letter addressed to the Government of India in 1889, the Local Government pointed out that the chief obstacles to the establishment of a new final standard for high schools or of an alternative Entrance examination were "that no facilities existed for teaching the course of study which either examination was calculated to test, and that, as regards the alternative Entrance examination owing to the fact that no bifurcation of studies was possible till after the Intermediate examination of the University, it would lead to nothing." The latter obstacle was afterwards removed by the decision of the University, sanctioned by the Government of India in March 1891, to introduce alternative courses into the Intermediate examination, similar to those already adopted for the B.A. examination. Shortly afterwards a Committee on Technical Education was appointed by whom a scheme for a "School Final Examination" was drawn up, and in January 1892 this scheme was adopted unaltered by the Senate: the general principles of the scheme were approved by the Government of India in February, but as the details had not been completely worked out, it was not finally sanctioned. The following is the list of subjects prescribed:—

A.—Compulsory Subjects.

1. English.
2. Hindustani.
3. Arithmetic and Elementary Mathematics.
4. History and Geography.

B.—Optional Subjects.

1. A further course of Mathematics.
2. Elementary Physics.
3. Elementary Chemistry.
4. Drawing.
5. Mensuration and Surveying.
6. Political Economy.
7. Book-keeping.
8. Agriculture.

The examination is intended to serve the double purpose of a final test for schools electing to teach practical or technical subjects, and of a matriculation examination for students choosing the scientific course of study for the degree, and this double end is secured in a very simple manner. To pass the examination a candidate must pass in all the compulsory subjects, and in at least one optional subject, but he will not be regarded as having matriculated unless he has passed in the higher course of Mathematics, and in either Physics or Chemistry. The definitions of the compulsory subjects have been very carefully drawn up with a view to making the examination as practical as possible; "in English the stress is laid upon capacity to use the language with facility both in speaking and writing; the practical side is made prominent at the expense of the

literary side. In compulsory Mathematics the whole stress is laid on Arithmetic. In History and Geography the scope of the examination corresponds nearly to that of the present Entrance standard, but special attention is directed to the Geography of the British Empire. Finally, in place of the fourth subject of the Entrance examination, a classical language, we have substituted a test of the student's practical knowledge of the recognised form of the vernacular of these provinces; and the student, being thus relieved from the study of a classical language, will be able to devote some time to acquiring the elements of Physics or Chemistry." The optional course in Mathematics is equal to the ordinary Entrance course in Geometry and rather more advanced in Algebra: the course in Drawing extends to the second grade of the Bombay School of Art, and includes practical linear geometry, linear perspective, free-hand drawing from the flat and from models: the limits of the other subjects have not yet been fixed. Shortly after the close of 1891-92 teachers of drawing and science were appointed in five Government high schools, and drawing was made optional with the classical language in the middle English examination of 1894.

The impetus given to secondary education by the establishment of a local University is shown by the fact that the number of scholars in the high stage of instruction has increased by 55 per cent. The total number of scholars in high schools has decreased, but this decrease is only in the lower classes; in 1886-87 the zila schools were inspected for the first time by medical officers, with the object of ascertaining whether the sanitary arrangements were satisfactory, and the reports showed that all the schools were overcrowded; in order to reduce the number of scholars the lower primary sections of many schools were removed to branch schools, and in other cases the rules for the admission of pupils were made more stringent, the result being a large reduction in the number of scholars in the lower classes. In some schools also the number of scholars has decreased in consequence of an increase in the rate of fees. This is most noticeable in middle vernacular schools, in which the majority of students had paid no fees.

It is not easy to ascertain the principle adopted by the Department in the classification of Oriental schools and colleges; there are 6 aided schools of this class named in the report, all of which seem to have been classed as middle, since Table V does not show any scholars in the high stage in vernacular schools. Five of the schools, however, send up candidates to the final examination in either Sanskrit or Arabic, and this examination is described in the schedule as belonging to the high stage; the remaining school sends up candidates to the Oriental examinations of the Punjab University, and some of the schools have succeeded in passing candidates at examinations beyond the high stage, competing with the students of the institutions classed as colleges.

102. Secondary Education in the Punjab.—In the annual report for 1889-90 the Director writes: "It was resolved some time ago to introduce into High schools alternative courses in Science and in subjects specially calculated to fit students for a commercial career or for employment in public offices, in cases where this might seem desirable. The question of holding examinations in such subjects, alternative with the ordinary Entrance examination, was subsequently referred to the University. There has been some unavoidable delay in dealing with the question; but the University has now determined to hold a Clerical and Commercial examination, and an alternative Entrance examination in Science. The standard for the former examination has been recently fixed; and it may be hoped that rules regarding the examination in Science will be finally settled very shortly. As soon as this has been accomplished, arrangements will be made to train teachers in the Central Training College with a view to the new courses, and to teach the courses in the Central Model school, and wherever else it may seem desirable." The Clerical and Commercial examination has not yet

found its place in the regulations of the University, and no examination has been held. The course includes the following subjects :—(1) English, as in the Entrance examination; (2) Dictation and Caligraphy ; (3) Précis-writing and official and commercial correspondence; (4) Commercial Geography; (5) Book-keeping and Commercial Arithmetic. The examination will be conducted by the University, but like the Bombay examination it will not lead up to any of the higher examinations of the University. Regarding the alternative Entrance examination in Science, there was much divergence of opinion ; the scheme originally submitted to the Senate was referred back to the Syndicate, but after repeated discussions in the Faculties of Science and Arts and in two Sub-Committees it was finally adopted by the Senate in 1892. The following is the list of subjects included in the course :—

I.—Compulsory.

1. English.
2. Mathematics.
3. History and Geography.
4. Physics and Chemistry along with the elementary principles of Mechanics and Hydrostatics.

II.—Optional.

One of the following :—

1. Botany and Zoology.
2. Agriculture.
3. Mechanical and Free-hand Drawing.

The first three subjects form part of the present Entrance examination, and the same question papers will be used for both examinations. In all the scientific subjects one-third of the marks will be assigned to practical work. The bifurcation of studies will not end with the high school course, for the University is now engaged in drawing up a scheme for the institution of an examination for the degree of Bachelor of Science.

In the educational system of the Punjab the study of the vernacular and classical languages of India has always taken a very prominent place. In other provinces there are schools for the study of these languages, many of them of a very high standard, but in them the students are taught nothing but the language. After passing the middle standard a student who wishes to carry his general studies farther is taught through the medium of English. The Punjab University alone has an examination in general subjects conducted in the vernacular, but it appears that there is little or no demand for vernacular high education in the province. The last vernacular high school managed by local bodies was in 1889-90 converted into an Anglo-vernacular school, in accordance with the wishes of the people, and in the school attached to the Oriental College, which is managed by the University, the number of scholars has decreased by one-half. On this point one of the Inspectors says: "Nowhere in the Circle has the progress of Vernacular education kept pace with that of English. There is no desire anywhere to raise the status of a Vernacular Primary School to the Middle grade, though the introduction of English into every Vernacular School is desired by those who think they can pay for it." The great demand for English as compared with vernacular education is shown by the fact that of 64 secondary schools for boys under private management, only 1 is vernacular.

103. Secondary Education in the Central Provinces—In these Provinces the curriculum of the high schools has been based upon the Entrance examination of the Calcutta University, and no alternative standard has been

prescribed by the Department. A great deal has, however, been done to give a more practical and useful turn to education in schools of all classes. Drawing has been made compulsory in the primary classes of vernacular schools, and as all boys must pass through these classes before entering the high schools, instruction in drawing will be given to all scholars. The subject is an optional one in the middle departments of both vernacular and English schools. Drawing masters have been appointed in all the high and middle schools, and all the teachers who go through the Normal schools receive special training in this subject. Manual training has also been introduced into all the primary and middle classes; in the lowest classes this includes some of the Kindergarten occupations, which are followed by modelling in clay, paper-folding and cutting, exercises in wood-work with the knife, modelling in card-board, etc. This part of the course is not very popular with the people, "mainly because its aim and scope are misapprehended. Its aim is to cultivate the perceptive powers by actual seeing, hearing, and feeling, to quicken the faculty of observation, to cultivate deftness of hand and a sense of harmony and proportion, to implant some rudimentary notions of construction and mechanical contrivance. Instead of making our boys the passive recipients of mere book knowledge, and of facts too often ill-digested, we endeavour by a few simple manual exercises so to train the faculties of the students that when they leave school they may not be altogether ignorant of the use of tools, may be deft with their fingers, and may be able to draw a straight line; for manual training is simply an amplification of drawing." At first manual training was made a compulsory subject, but in consequence of its unpopularity it was transferred to the list of optional subjects in 1892. Elementary science is a compulsory subject, and in the upper primary and middle departments of rural schools agriculture. In order to qualify the teachers to give instruction in science, itinerant teachers of science were appointed, whose duty it was to deliver a series of lectures at different centres for the benefit of the teachers of the schools in the neighbourhood. At the close of each series of lectures an examination was held, and certificates were awarded to the teachers who passed.

The departmental examinations have been made the tests for admission to the public service. For posts the pay of which does not exceed R15, the test is the upper primary examination, and this examination is also compulsory for all scholars who wish to enter a middle school. For posts the pay of which exceeds R15, but does not exceed R30 the test is the middle school examination, which is also the admission test for high schools. Candidates for posts above R30 must pass the matriculation examination. The standard of the middle school examination has been raised considerably. In order to encourage candidates to take up drawing, which is one of the optional subjects, prizes are given to the ten best candidates in each of the three branches—freehand, geometrical, and model drawing—and prizes are also given to the 30 candidates who obtain the highest marks in physical science, in addition to the scholarships that are awarded on the general result of the examination.

104. Secondary Education in other Provinces.—In Burma it has not been found practicable to introduce a modern side into the high schools; the average strength of the high department (18 boys) is not sufficient to allow of a sub-division of the classes. In middle schools drawing and some branches of elementary science are included among the optional subjects, and drawing has been made compulsory in departmental and municipal schools.

In 1886-87 the only standards fixed for schools were those of the lower primary, upper primary, and middle school examinations of the province, and the Entrance examination of the Calcutta University: the interval between successive examinations was intended to be two or three years, but in many schools

pupils were forced up from one examination to the next in a year, so that there was no proper gradation of classes and very little real education. To remedy this defect new rules were laid down in 1890 defining the course for every year of a child's school career, and requiring every scholar to pass an examination in the work of one class before promotion to the next. The result of the introduction of these rules is said to be "better organization, better classification, and much more thorough work."

The operations of the Education Department were extended to Upper Burma in 1889-90; as in other places missionaries were the pioneers of secondary education, in the first year there were three schools with 251 pupils, including girls; two years later the number of schools had increased to 13, and the pupils to 726, 12 of the schools being under missionary management.

In the other three provinces the system of secondary education is founded upon that of one or other of the larger provinces, and there is nothing of interest to record beyond the amount of progress made, which has been already recorded.

105. Qualifications of Teachers.—In order to avoid unnecessary repetition, the recommendations of the Commission under this head will be discussed in the chapter on training schools; the present paragraph will show what rules have been laid down in each province with a view to secure the appointment of duly qualified teachers in all schools receiving money from public funds, and, wherever statistics are available, the number of trained and untrained teachers in secondary schools.

In Madras the rules regarding the recognition of schools and colleges require that the head master and half of the general staff of every recognised school shall either have (1) gone through a course of training, or (2) have passed the training school examination and have served for two or four years with credit, or (3) have served for five or seven years with credit in recognised schools. These rules affect unaided high schools as well as those more closely connected with the Department, since the University will not in future admit to the matriculation examination candidates from schools that are not recognised. In aided schools the appointment of trained teachers is encouraged by the salary grant system, a larger proportion of the salary being given for a trained teacher than for one who has merely passed the examination for a teacher's certificate. Some of the middle schools are aided on the results system, which does not make the same distinction between trained and untrained teachers, but ordinarily no school above the lower primary class is eligible for aid under this system unless it has a certificated teacher; this rule is relaxed in the case of schools for girls and for backward classes.

In 1886-87 only 30 per cent. of the teachers employed in secondary schools had been trained or had passed the normal school examination, and 18 per cent. had passed no examination; in 1891-92 the number of teachers holding normal school certificates had increased to 44 per cent., two-thirds of whom had been trained, and the number of persons who had passed no examination was only 13 per cent., or rather less than one for each school.

In Bombay there is no system of training or of examination in the principles and practice of teaching for teachers of secondary schools, the training schools and colleges being intended to supply the demand for teachers in the primary schools. It must be remembered, however, that those schools include all the schools that would be classed as middle vernacular in other provinces. In aided schools the department must be satisfied "that the teaching staff is competent and adequate," but no definite rules are laid down. The case is similar in Bengal; there are normal schools for training teachers for middle

schools, but the outturn of teachers is insufficient to enable the Department to insist upon the appointment of trained men in all schools. In 1891-92 an attempt was made to ascertain the qualifications of all the teachers of middle schools, but the instructions given were misunderstood by some of the Deputy Inspectors, and the returns are incomplete. Out of 688 head masters of middle English schools only 8 had passed the final examination of a normal school; 577 had matriculated, 88 of whom had passed a higher University examination; 23 had passed the middle English scholarship examination, and 80 held no certificates. In the middle vernacular schools the number of trained teachers was very much larger, amounting to 505 out of 666, besides 18 who had passed the guru-training examination; 15 had matriculated, 69 had passed the middle examination, and 59 held no certificates. Including assistant teachers in both classes of schools, 1,597 out of 5,630 teachers had passed the vernacular mastership examination, 106 the guru-training class examination, and 1,345 had passed no examination. No statistics are given regarding the teachers in high schools. In the North-Western Provinces teachers in middle vernacular schools under public management are required to obtain teachers' certificates, either by going through a normal school, or by passing the final examination of such a school. In 1889-90 only 2 per cent. of the head masters of these schools were uncertificated, and 31 per cent. of the assistants, but the report does not show how many of the teachers had obtained their certificates without training. In English schools the qualifications of teachers are tested only by the University examinations they have passed: in schools under public management none but graduates are eligible for posts of the value of ₹100; the First Arts examination qualifies for posts the salary of which is from ₹50 to ₹100, and the matriculation examination for all posts of less value. There are no definite rules regarding the qualifications of teachers in aided schools. In the Punjab the rules are similar to those in force in Madras; in aided schools where certificated teachers are employed, a portion of the salary of those teachers is paid in the form of staff grants in addition to the other grants which the schools may earn. In schools under public management uncertificated teachers can be appointed only when certificated teachers cannot be obtained. Provision is made for training teachers for all grades of schools, but in addition certificates are given to teachers who pass prescribed examinations and afterwards serve with credit in schools under inspection. No statistics are given of the number of trained and untrained teachers in the schools.

In the Central Provinces the Nagpur Normal School has been converted into a training institution for teachers of the higher grades of schools, and also of colleges, and a European Principal has been appointed. The course of training was at first only six months, and two sets of teachers passed through the institution in the year; but the course has recently been extended to a year, in order to admit of a more thorough study of the principles and practice of education. Normal certificates are given to those who go through the course, and who also pass in (1) a general education test, depending on the grade of certificate, (2) a special education test, (3) teaching power, by teaching a class in the presence of an Inspector of Schools, (4) handwriting and reading aloud a passage in the language brought up, (5) drill and gymnastics. "Ordinary" certificates are given to teachers who have served for a year in a school under Government inspection, but have not undergone a course of training, provided they pass in the same subjects, and it is announced that 'promotion in the case of Deputy Inspectors and Teachers of Government and Board institutions will mainly depend on the possession of teachers' certificates, preference being given to Normal certificates. In the case of aided schools, regard will be had, in regulating the annual grant, to the question whether a fair proportion of the teachers possess

teachers' certificates, preference being given to Normal certificates." There are two classes of secondary certificates, differing only in the general education test, which is the First Arts Examination for the first class and the Matriculation Examination for the second. In Burma more stringent regulations have been made: after the 1st January 1893 no teacher will be appointed to, and unless specially exempted, no teacher will be retained in a Government or Municipal School, who has not passed the Normal School Examination, and after the beginning of 1895 every teacher in these schools holding a post of the value of R50 must possess a teacher's certificate, which can be obtained only by approved service for two or three years in a school under Government inspection after passing the normal school test. A year later the aided schools will be required to employ certificated teachers as a condition of retaining their grants The Moulmein Normal School has recently been converted into an Anglo-vernacular school to train teachers for English secondary schools. Extremely liberal grants are given to indigenous middle schools to enable them to employ certificated teachers; the rules relating to these grants are the same as in the case of primary schools, and will be explained in the next chapter. In Assam every teacher in a secondary school, both Government and aided, must qualify for a teacher's certificate as a condition of permanent appointment. The final examination of the normal schools is the test for these certificates in the case of vernacular teachers; for English teachers a separate examination is held, the subjects of which are English up to the Calcutta First Arts standard, Arithmetic, both European and Native, and the Art of Teaching. As in Bengal, provision is made for training teachers for middle vernacular schools, but there are no means of training English teachers If a training college is started for them in Bengal, the Assam teachers will be sent to it to be trained. Most of the teachers of secondary schools in Berar are imported from Bombay; but recently a few boys have been attached to one of the high schools to receive some training; all of the secondary schools are under the direct control of the Department, so there is no necessity for elaborate rules regarding certificates. In Coorg there are only three secondary schools, the teachers of which are trained in Madras.

106. Fees in Secondary Schools.—The total expenditure from fees in each province has been shown in paragraphs 96 and 97: it remains to explain what action has been taken since 1886-87 to give effect to the recommendations of the Education Commission. These recommendations are (1) "that the Director of Public Instruction, in consultation with the managers of schools receiving aid from Government, determine the scale of fees to be charged and the proportion of pupils to be exempted from payment therein;" (2) "that in order to encourage the establishment of aided schools, the managers be not required to charge fees as high as those of a neighbouring Government school of the same class;" (3) "that scholarship-holders as such be not exempted from payment of the ordinary fees;" (4) "that it be an instruction to the Department in the various provinces to aim at raising fees gradually, cautiously, and with due regard to necessary exemptions, up to the highest amount that will not check the spread of education, especially in colleges, secondary schools, and primary schools in towns where the value of education is understood." The report of the Commission states that the first of these recommendations was adopted by a majority of the members, one of the chief arguments in its favour being that the system had been in force in Madras for 13 years "with the universal approval of the managers of aided schools." The experience of eight years more, however, induced the Local Government to abandon the system, and to leave the managers of aided schools a free hand with regard to the levy of fees. The reason for this change of system is not given in the reports, but probably it was due to the difficulty experienced by aided schools in competing with

unaided schools in which lower fees could be charged: in some cases the managers of aided schools resigned the grants in order to be able to reduce the fees. The new rules came into force in January 1892, and at the same time a new scale of fees was adopted for schools under public management; in the high department the fees now vary between ₹30 and ₹38 a year, the average being rather lower than the previous rate, ₹36; in the middle department the fees range from ₹14 to ₹22, the average rate being unchanged; in the primary department the range is from ₹2-4 to ₹9. In vernacular schools the rate is fixed by the local authorities. In Bombay there is no uniform rate of fees, but the Department have endeavoured to induce the managers to raise the fees wherever it was possible, and the average amount paid by each scholar, as shown by the general tables, has risen by more than a third. In some of the schools under municipal management the rates are said to be still very low, and cases are mentioned in which the fees range from four annas to one rupee, though these schools have no primary classes.

In Bengal the rates are not fixed by the Department, and therefore vary in different schools, but the average incidence per scholar has risen considerably. Some cases are mentioned in which fees in Government schools have been raised, but no general increase of the minimum fixed for departmental schools is mentioned. These rates are—for the high department ₹2-8, for the middle department ₹2, and for the primary department 12 annas to ₹1-8. In the North-Western Provinces the classification of the schools into "inferior" and "superior" has been retained in the revised rules introduced in 1889; the fees in the middle and upper primary sections have been raised, and the present scale is as follows: high department, ₹1-8 and ₹2; middle department, ₹1-4 and ₹1-8; upper primary, annas 12 and ₹1; lower primary, annas 6 to 8 and annas 8 to 12. The rates for aided schools are three-fourths of those for schools under public management. In all classes of schools 15 per cent. of the scholars may be admitted free. Special rates are fixed for collegiate schools. The result of the increase in the rates was a loss of scholars in the upper primary and middle sections of both state and aided schools, but the middle department afterwards regained the whole amount lost. It has already been mentioned that the zila schools had not sufficient accommodation for all the scholars in them, so that a reduction in the attendance was desired. It was stated in the last Review that the fees in the Punjab had been raised, and that the revised rates would be doubled in five years by an addition of 20 per cent. each year: it was afterwards decided to increase the interval from one year to two for the last two increments, so that the rates have been raised by 80 per cent. instead of being doubled. The present scale for the poorest class of scholars is in the high department ₹2-4 to ₹2-10, in the middle department ₹1-6 to ₹1-12; in the upper primary department annas 10 to annas 14; in the lower primary classes annas 3 to annas 4; and in the infant class anna 1½. For children of more wealthy people the rates are two or three times as high, the maximum rate in the high department being ₹7. In vernacular schools the fees are much lower; there is only one scale, which is as follows: in the high department annas 10 to annas 12; in the middle department annas 6 to annas 8, and in the primary department one anna to 5 annas. The maximum number of free scholars is 10 per cent. in primary classes, and 5 per cent. in secondary departments, not including the children of agriculturists, who are now allowed to read free in the primary classes; this concession is to be reconsidered in 1893. These rates are reduced by 25 per cent. in aided schools. The result of this large increase in the fees has been a reduction of the average strength of both board and aided schools, and a large addition to the pupils in unaided schools. It would be interesting to ascertain the number of scholars

paying the highest rate of fee and the class of society to which they belong, but the reports are silent upon this point; the classification of scholars is left to the managers of the schools.

In the Central Provinces the fee rates were considerably enhanced in the beginning of 1891-92; in the middle and primary departments of schools under public management there are three scales; the first applies to the children of persons in receipt of an annual income not exceeding R350; the second scale is double the first, and applies to those whose income does not exceed R2,000; for persons whose income exceeds this amount the fee is eight times the lowest rate, but in all three classes half fees are charged for younger sons. In the high department there is only one rate, R2 in one school, and R1-8 in the others. In Anglo-vernacular schools the lowest scale is 6 annas in the classes where English is taught, and 2 annas in the lower classes. In vernacular schools the lowest scale is 2 annas in the middle department, and one anna in the primary. The maximum proportion of free scholars is 5, 10, and 20 per cent. in the high, middle and primary departments, respectively. In aided Anglo-vernacular schools the minimum rates are R1 in the high department, annas 8 in the middle, annas 6 in the upper primary, and annas 2 in the lower primary. In vernacular schools the rates for the last three sections are six, four, and two annas, respectively. The proportion of free scholars in the middle and high departments of aided schools is 5 per cent. higher than in those schools under public management. These rates appear to place the lower classes of aided schools at a disadvantage in competing with Government schools if the proportion of scholars paying the lowest rate of fees is large. The returns, however, show that the total number of scholars in aided schools has materially increased, though the attendance in each school has slightly decreased. In Burma the fees in all schools are fixed by the managers, but in Anglo-vernacular schools under public management a minimum of R1 has been prescribed for all classes. The average amount paid by each scholar is very high, and has increased by more than 50 per cent. in the five years. In the aided high schools of Assam the fee rates must be approved by the Director for each school separately; the number of free scholars is limited to 25 per cent. In Berar the fees were raised in 1887-88; the rate depends only on the class of instruction, and not on the income of the parents. The present scale is—in the high department from R2 to R1-8; in the middle department, from 12 to 8 annas, and in the primary department, from 6 to 2 annas. The number of free scholars is limited to 5 per cent., but 20 per cent. may be admitted at lower rates, and this privilege is extended to all Muhammadans. The increase in the fees affected the attendance slightly at first, but it soon recovered; the apparent loss of pupils shown in paragraph 84 is due to a different cause. No details are given in the Coorg reports, but from the tables it appears probable that the fee-rates have not been changed.

The recommendation that scholarship-holders should not be allowed to read free has not been adopted in any of the provinces to which it applied. In Bengal the Director states that on enquiry it was found that no complaint or objection had ever been raised by the managers of private schools to the practice of allowing middle scholars to read free in high schools.

107. Average incidence of fees.—The preceding paragraph contains all the available information regarding the fee-rates fixed for different classes of secondary schools, but from General Tables III and IV we can determine approximately the average amount paid by each scholar in these schools. This is shown in the following tables, the first of which gives the average incidence of the expenditure from fees in 1891-92 in the high, middle English, and middle

vernacular schools of each province, and the second gives the corresponding figures for the whole of India, the same three classes of schools being subdivided according to management. It has already been explained that in some cases the expenditure from fees falls short of the total amount paid by the scholars, so that it is impossible to give accurate statistics :—

Province.	High Schools.	Middle English Schools.	Middle Vernacular Schools.
	R	R	R
Madras	20·3	9·	1·2
Bombay	23·	9·5	...
Bengal	16·7	4·5	3·
North-Western Provinces and Oudh	17·3	6·6	1·3
Punjab	11·3	5·8	1·7
Central Provinces	12·8	5·3	·4
Upper Burma	...	9·4	...
Lower Burma	22·2	12·5	...
Assam	14·3	4·6	3·3
Coorg	14·2	8·1	...
Berar	15·5	3·1	...
Management.			
Government	20·6	7·9	2·2
Board	15·6	8·3	1·4
Native States	25·3	6·	·2
Aided	17·2	6·1	2·9
Unaided	16·3	4·9	2·3
TOTAL	17·6	6·4	2·

As might be expected, Bombay shows the highest rate of fees in high schools, because very few of the schools contain primary departments to reduce the average; Madras comes very high in the list for the same reason, which also accounts for the high rate in the middle English schools of both provinces. It is difficult to reconcile the low figure given for the Punjab with the rates quoted in the last paragraph, and still more so to account for the fact that the average is much higher in aided schools than in those managed by the Boards. If allowance be made for the absence of primary departments in secondary schools, the Central Provinces show the lowest rate of fees in all classes of schools, and Burma the highest rate. Assam and Bengal show the highest rate in vernacular schools; the latter province contains nearly two-thirds of the entire number of schools of this class, and as the majority of these are aided institutions, this accounts for the fact that the average is higher in aided schools than in those under public management, while it is lower in English schools, both high and middle.

108. Scholarships in Secondary Schools.—In paragraph 171 of the last Review it was stated that in every province, with one possible exception, the system of scholarships had been, or was being, constructed in conformity with the principles laid down by the Education Commission. The one exception was Madras; in this province no scholarships were created by Government, but grants were made to both colleges and schools to supplement the stipends given from private funds. With reference to this system Sir Alfred Croft writes: "It follows that the creation not merely of a chain of scholarships, with special provision for poor boys in backward tracts, but even of a single scholarship, rests on the variable and uncertain basis of private liberality." In his remarks on this criticism of the system, the Director says: "I do not, however, quite understand the grounds on which it is implied that the scholarship system with reference to chapter VII of the code is not in full conformity with the principles laid

down by the Education Commission. The main principle aimed at in all the recommendations of the Commission is the stimulation of private and independent efforts with regard to education, and this principle it is that underlies the rules relating to scholarships in chapter VII of the code; and to say that the whole system of scholarships rests 'on the uncertain basis of private liberality' is itself an ignoring of the above principle, which has been steadily kept in view by this Department. The only objection that may be taken to the rules of chapter VII is that no stress is laid on the scholarships being continuous. But this point, though not explicitly brought out in the code, is still implied in the rules, and, as a matter of fact, the scholarships awarded under chapter VII are continuous. Not only so, but in consequence of the system of free scholarships prevailing in this presidency, and the great competition which exists among schools, a talented child can pass from the Primary school to his degree in the University, without paying a single rupee for his education. I do not say that this system of free scholarships is good. Far from it. But whilst it exists, and whilst the numerous private institutions supplement the Government scholarship system by valuable stipendiary scholarships, the expenditure of a large sum of money in extending the Government scholarships would be little better than waste of the public funds . . . . The impulse given to private liberality by chapter VII has been marked. Last year a sum of R14,087 was expended under this chapter, and 11 institutions were granting scholarships on open competition in accordance with rules approved by the Director. Had more money been at my disposal, I know that the advance would have been greater than it has been. I doubt if any province of the Indian Empire can shew equal advance - an advance due to the reliance placed by this Government 'on the variable and uncertain basis of private liberality.'" The statement that the scholarships are continuous does not appear to be borne out by the figures given in the reports. The report from which the above extract is taken mentions the fact that two aided institutions had ceased to give scholarships, and the number of institutions to which such grants were given, schools and colleges together, fell in two years from 11 to 6, though it has since risen to 15. Hence it appears that the tenure of a single scholarship may not be continuous for the whole period for which it was awarded. With regard to the continuity of the chain of scholarships linking one grade of school with another, the figures in General Table IV show that for the whole of India the expenditure from all sources on scholarships tenable in secondary schools exceeds by one-third the total value of the scholarships tenable in Arts colleges, but in Madras the total expenditure of this kind in 1891-92 was R5,473 in secondary schools, and R30,172 in Arts colleges. The latter amount exceeds the corresponding expenditure of any other province except Bengal and the North-Western Provinces, while the former is much less than that of any province except Coorg, and even there the expenditure is much higher in proportion to the number of children in the schools. One serious defect of the system is not alluded to by the Director: the Government expenditure is greatest where it is least necessary; and where it would do most good, no money is given. In localities where education has not been widely diffused private liberality cannot be relied upon to the same extent as in more favoured places, and it is natural for persons who wish to found scholarships to attach them to old and well-established institutions in preference to those of more recent growth. Hence the system tends to increase the disparity in the spread of education, instead of showing special favour to backward tracts and backward races. It is true that the Government has to some extent remedied this defect by creating special scholarships for backward races, but these scholarships are given almost exclusively on the results of the University examinations, the total expenditure on boys' scholarships of a lower grade

amounting only to R161. Technical scholarships are of course excluded, as they will form the subject of a separate section.

In the last Review it was stated that the Bombay Government had sanctioned a grant of R10,000 to be added to an equal amount from the provision for scholarships in colleges to provide scholarships in secondary schools. The rules were published in 1887-88; 66 scholarships of R5 a month were created tenable for four years in a high school, and an equal number of the value of R3 a month, tenable for 3 years in a middle school, both grades being also tenable in special schools. Of these scholarships 24 of each grade were thrown open to all candidates, boys and girls alike, one in each district, and the remainder reserved for backward classes. It appears, however, that the provincial expenditure on these scholarships is much less than the amount originally sanctioned, for in 1891-92 it amounted to only R10,646, but this amount represents only one-third of the total expenditure on scholarships in secondary schools, more than half of the total amount being contributed from private sources. In Lower Burma the Local Government has provided scholarships tenable in high schools and colleges, but has not linked primary and middle schools, though this has been done in Upper Burma. In Coorg there is a small private fund for scholarships in secondary schools, but Government provides scholarships to enable scholars to enter Madras Colleges. In all other provinces there is a complete chain of scholarships leading up from the primary school to the University. The total expenditure on scholarships in secondary schools in 1891-92 was R2,93,887, the contribution from provincial revenues being R1,32,758.

109. The further extension of Secondary Education, and the withdrawal of Government in favour of private managers.—These two questions were treated separately in the last Review, but they are so closely connected that it will save some repetition, if they are taken together. The recommendations of the Education Commission on this subject met with the approval of the Government of India, and are to the effect that the Department should gradually withdraw from the direct management of secondary schools, and that the extension of secondary education should generally be left to the operation of the grant-in-aid system. In order to explain fully what has been done in each Province to give effect to this policy, it will be necessary to recapitulate a part of what has been said in the sections relating to the control of secondary schools.

Madras.—In Madras the Department has withdrawn from the direct management of secondary schools to nearly the fullest extent possible without diminishing the supply of education, and in the opinion of some the limit fixed by the Commission has been exceeded, for the Director states that complaints are made that the standard of secondary education has been lowered, though he is not prepared to admit that this is the case. Even if the complaint is well founded, the recent action of the Department and the University with regard to the recognition of schools ought, if properly worked, to be much more effective in raising the standard of the schools, than the example of, and competition with, a few schools, however efficient they might be. The Department now maintains only two secondary schools that could be transferred to other management; these are both collegiate schools; of the rest 27 are schools in backward tracts or intended for backward races, and 10 are practising schools attached to the training institutions, most of which have recently been taken over from the local Boards, in order to enable the latter to devote a larger share of their funds to primary education. Unaided institutions have taken the place of the English schools formerly maintained by Government, for the schools maintained by local and municipal Boards have decreased in number from 133 to 110, and

aided schools have decreased by one. The table given in paragraph 84 shows an increase of only one under the head of unaided English schools, but Table VI shows an increase of 49 in the number of unaided schools sending up candidates to the matriculation examination, and it is probable that considerably less than half of the unaided high schools have submitted returns. Under the new rules these schools must either be brought up to the standard of efficiency prescribed by the Department, or will cease to exist, for they will not be able to attract scholars if they are not allowed to send up candidates to the University examination. It is probable that the next annual returns will show a large accession of pupils in the board and aided schools, and the increase in the fee receipts should be sufficient to set free funds for grants to other schools, which cannot now be aided.

Bombay.—During the last five years only one of the Government high schools was transferred to private management; of the 26 Government middle schools, 4 in Bombay were amalgamated, 3 were closed, 6 transferred to municipal management, and 5 to private management, 3 with aid from Government. Very few, if any, board schools have been transferred to private management; municipal schools have increased by 6, the number of schools transferred by the Department. Local Board schools have decreased from 43 to 13, but most of the schools have been closed on account of the small attendance. Aided schools increased by 2 only, but there was a large increase—from 15 to 56—in the number of unaided schools; it appears from the University lists that all the unaided high schools have submitted returns. The details given in the Bombay reports are so meagre that it is impossible to form any opinion regarding the demand for a further extension of secondary education, or on any other point.

Bengal.—In Bengal 3 high schools were transferred to municipal management, and 2 to private management, but 55 English schools are still under the direct control of the Department, of which 49 are high schools, either attached to colleges or at the head-quarters of districts, and 6 are middle schools, all of which are either model schools or schools in backward tracts. The last provincial report gives information regarding the competition of Government with other schools; of the 49 high schools under departmental control 12 are attached to Government colleges, and are therefore situated in towns where there is room for several schools; of the remaining 37 schools, 23 have no rivals in the same locality, and 14 have private schools near them; 4 of these are in towns where the number of scholars is sufficient for all the schools in existence, 3 have rivals of such recent foundation that it would be premature to close the Government schools, 2 are about to be abolished, one is in process of transfer to a local committee, and the local municipalities have been asked to undertake the management of the other four. The Director says "the process of withdrawing Government support from zila schools by closing some and transferring others to local bodies must be a slow one, as otherwise Government, losing its sources of income derived from local receipts, will find itself burdened with a large number of supernumerary teachers, without the means of paying them which were formerly at its disposal." In 1887-88 all the departmental middle schools in extra-urban areas of all regulation districts and one non-regulation district were transferred to the control of district boards, and the funds for grants to the aided schools of the same class were also transferred, so that the Department retained the direct management of schools in municipalities and cantonments, and in districts to which the Local Self-Government Act did not apply. These schools numbered 43, of which 3 were afterwards transferred to municipalities, but no direct transfers to private management took place, and only two cases are recorded of the conversion of board schools into

aided schools. With regard to the extension of secondary education, it appears that schools under public management have increased by 5 only, all of these being middle schools; aided English schools have increased by 75, and aided vernacular schools would also have shown an increase, but for an alteration in the mode of classification, by which schools, aided from the primary fund, are shown as primary schools, even when they have middle school classes. The advance in the number of aided schools would have been much greater if funds had been available. The grant-in-aid allotment is not increased from year to year and new grants can only be given if old grants can be reduced or cancelled; the Director says that "every application for the renewal of a grant is closely overhauled with a view to possible reduction." The great demand for additional aid is shown by the fact that in March 1892 there were 326 unaided middle schools, "most of which have been established in the hope of obtaining grants of public money." In consequence of the inability of Government to increase the amount of aid given, "the improvement of many secondary schools has received a check."

North-Western Provinces and Oudh.—It is very difficult to ascertain from the annual reports of these Provinces all the changes that have taken place, for the schools are grouped together on a plan which differs from that of the general tables, and this plan is not quite uniform. Apparently there is only 1 school, the Benares Collegiate school, which is maintained by Government, but the zila schools are managed by the Department, though they derive their support from local funds. Two schools, formerly under private management, were converted into zila schools, while only 1 such school was transferred to private management, being amalgamated with an aided school. One other school has been added to the list of Government institutions, but I have not been able to trace it in the reports. One Government Oriental school was closed, as there were private schools in its vicinity of the same class. The number of aided schools has slightly increased, though they have lost some pupils; in unaided schools the changes are in the opposite direction.

Punjab.—In the Punjab there are no Government secondary schools that could be transferred to other management. The only institution that is directly managed by the Department is the school attached to the Central Training College; the Oriental College school is classed as a Government school, but it is managed by the University; the other 2 schools are the asylums at Murree and Sanawar. All the other schools, formerly managed by Government, were transferred to municipalities in 1886. The following extracts from the Punjab Education Code show the attitude taken by the Department with regard to the extension of secondary education:—

"It is expected that all new Anglo-Vernacular schools and new Vernacular schools for Secondary education shall be established on the grant-in-aid system.....Any other arrangements will require the sanction of Government; and such sanction will be given in exceptional cases only. Every facility shall be afforded by Local Bodies for the conversion of Board Schools into Aided Schools, where private persons or associations are willing to accept the responsibility of management, and to give adequate guarantees of permanency and efficiency."

The reports do not show whether any board schools have been so converted into aided schools, nor do they account for the increase in the number of board schools. Aided schools have increased in numbers, but "it is a remarkable fact that the majority of secondary schools recently established under private management are unaided institutions. In some cases the Managers have applied for grants; but in others they prefer apparently, for a time at least, to be without them, owing mainly to the fact that they are not at present prepared to levy fees

at the rates prescribed in the Code..... The extension, however, of Anglo-Vernacular secondary schools, whether under the management of private persons and associations or of local bodies, is proceeding quite as rapidly as seems to be desirable."

Other Provinces.—In the Central Provinces education is less advanced than in the provinces already referred to, and in consequence the share of Government in the supply of secondary education is greater. The first step is, however, being taken towards the transfer of secondary schools to private management, for in 1890-91 it was decided to transfer the control of all Government schools within municipal limits to the municipal committees, and before the end of 1891-92 7 middle English and 7 middle vernacular schools had been so transferred. Six English schools have been added to the list of aided institutions. It has already been explained that in 1886-87 all vernacular schools were classed as primary, so that the changes in the number of middle vernacular schools under public and private management cannot be ascertained from the reports. In Burma there are no local boards, but 17 schools are managed by municipalities, an increase of 2 since 1886-87 Two schools are returned as Government schools, but 1 of these is managed by the Educational Syndicate. The majority of the secondary schools in Lower Burma, and all of the schools in Upper Burma are aided schools; there are no unaided schools in the province. In Assam there has been no change in the number of schools managed by Government, but there has been an increase of 5 aided and 2 unaided schools and 1 of the latter has recently been raised to the status of a college In Coorg there has been no change in the number or management of the schools All the schools in Berar are still managed by Government.

Summary.—Taking all the provinces of India together, and making allowance for the nominal transfer of schools in the North-Western Provinces, the total number of secondary English schools directly managed by Government has decreased during the five years from 236 to 220, and that of schools managed by local and municipal boards from 340 to 328, while the number of aided schools has increased from 1,267 to 1,381, and that of unaided schools from 395 to 536. In the case of vernacular schools the changes in the method of classification are so great that the totals do not even approximately indicate the nature of the changes that have taken place.

CHAPTER VI.

PRIMARY EDUCATION.

110. Character and Scope of Primary Education.—The object of primary education is defined by the recommendation of the Education Commission "that primary education be regarded as the instruction of the masses, through the vernacular, in such subjects as will best fit them for their position in life, and be not necessarily regarded as a portion of instruction leading up to the University." This recommendation recognises a double aspect of primary education;—for the vast majority of the people of India it is the final stage of instruction, while for a small minority it is only the initial stage, leading up eventually to the University. The differences between the systems of primary education adopted in the different provinces of India depend upon the relative importance attached to these two aspects. The reasons assigned for giving greater weight to one or other of the two aspects have been fully given in the report of the Commission, and in the last Review, and it will be sufficient now to give a general outline of the systems adopted in different provinces, in order to show to what extent the statistics given can be compared with one another. The details of the various systems will be dealt with in later paragraphs.

Locking at the various systems of primary education from the point of view of the recommendation above quoted, the two extreme systems are those of Bombay and Bengal; in Bombay the first four primary classes are the same for all classes of scholars, and form "a portion of instruction leading up to the University." The special needs of the masses are, however, provided for by the addition of two extra classes corresponding in standard to the first two classes of a middle school, though they are not classed as middle in the returns. In Bengal the two objects of primary education are recognised as distinct from the outset; the primary school "aims at teaching the elements of reading and writing, and such simple rules of arithmetic and land measurement as will enable the peasant in a purely agricultural country to look after his own interests," while in the primary department of a high school the course of instruction is designed to lead up eventually to the matriculation standard, and therefore generally includes English. In middle schools the primary course is nearly the same as in primary schools, but some slight alterations are made to fit in with the instruction to be received later in the middle section. The Madras system is intermediate between these two; one set of standards is prescribed for all schools, but it contains a large number of optional subjects, and therefore is sufficiently elastic to meet the wants of all classes. The Bombay system is followed more or less closely in the Punjab, the Central Provinces, and Berar, but in the Punjab the bifurcation takes place at the end of the lower primary stage. The Bengal system has been adopted entirely in Assam, and the systems of the North-Western Provinces and Burma resemble it. The Madras system has been adopted in Coorg. In all the provinces forming the "Bengal Presidency" of former times, schools for Europeans are under different rules and in all provinces primary education in these schools is merely the initial stage of secondary education.

Besides this difference of system, there is a difference in the method of classification of schools, which, though intrinsically not of much importance, materially affects all the statistics given in the present chapter. The majority

of the secondary schools throughout India have primary schools or departments more or less closely connected with them, which serve as feeders to the secondary departments. In some provinces these are all registered as separate schools, even when they are under the same management as the schools to which they are attached, while in other provinces they are considered as part of the secondary schools. Thus in Bombay the only secondary schools that have primary departments are those classed as European or English-teaching, and the primary schools of the province contain 99 per cent. of all the scholars in the primary stage. In the Punjab, on the other hand, all the secondary schools have primary departments, and the number of scholars in the primary schools is only 2 per cent. of the total number of children in the primary stage of instruction. These are the two extremes, for the whole of India 90·9 per cent. of the boys in the primary stage are taught in primary schools, and 9·1 per cent. in primary departments of secondary schools.

It will be shown later that the upper limit of primary education is not the same for all provinces, but probably variations of this kind have not very much effect upon the proportion of scholars in the primary schools. Table V shows that seven-eighths of the boys in the primary stage have not advanced beyond the lower primary standard, so that the number of those who reach the upper limit of primary education must be very small in comparison with the total number of boys at school; the proportion would not be materially affected by slightly raising or lowering that limit. In Bombay, however, the two extra classes raise the limit nearly up to that of the middle stage of other provinces, and so add very considerably to the proportion of scholars in the primary stages.

111. Explanation of the Maps.—The figures upon which the accompanying maps are based are given below. The number of scholars includes all boys in the primary stages of secondary schools, as well as scholars in primary schools.

Province.	1886-87.		1891-92.	
	Boys in Upper and Lower Primary Stages. (1)	Percentage of column (1) to the total male population of school-going age (census 1881). (2)	Boys in Upper and Lower Primary Stages. (3)	Percentage of column (3) to the male population of school-going age (census 1891). (4)
Madras	358,868	15·65	496,833	18·79
Bombay	394,020	21·97	459,493	22·13
Bengal	1,169,649	22·99	1,218,470	22·30
North-Western Provinces and Oudh	222,059	6·46	185,613	5·09
Punjab	112,195	7·32	123,981	7 34
Central Provinces	94,406	10 80	98,144	10·09
Upper Burma	...	...	48,446	22·66
Lower ,,	97,495	32 64	73,290	19 84
Assam	56,853	15·13	69,006	16·43
Coorg	2,804	18·60	3,602	25·03
Hyderabad Assigned Districts	38,694	18 68	45,463	20·32

112. Primary Schools for Boys.—The first of the two tables given below shows the number of primary schools in each province at the beginning and end of the period under review, and the number of scholars in them; the second table gives the total number of scholars in the schools at the end of each of the last six years.

Primary Schools for Boys.

Province.	1886-87. Maintained by the Department. Schools.	Pupils.	Maintained by Local and Municipal Board. Schools.	Pupils.	Maintained by Native States. Schools.	Pupils.	Aided. Schools.	Pupils.	Unaided. Schools.	Pupils.	Total Schools.	Pupils.	1891-92. Managed by Government. Schools.	Pupils.	Managed by Local and Municipal Boards. Schools.	Pupils.	Maintained by Native States. Schools.	Pupils.	Aided. Schools.	Pupils.	Unaided. Schools.	Pupils.	Total. Schools.	Pupils.
Madras	57	1,950	1,213	38,295	..	...	7,232	213,815	4,856	104,581	13,358	358,641	136	4,175	2,918	118,664	...	...	9,266	276,350	5,739	118,449	18,059	517,638
Bombay	30	2,334	4,602	277,661	1,633	90,563	763	31,701	14	1,458	7,042	403,717	31	2,178	4,646	294,043	1,836	107,948	1,767	69,855	74	3,007	8,354	477,031
Bengal	33	965	27	737	..	...	41,350	965,805	7,077	112,882	48,487	1,080,389	5	118	13	403	....	...	39,436	963,709	9,133	159,330	48,587	1,123,560
North-Western Provinces and Oudh	...	..	4,835	165,029	...	...	†100	†5,281	43	1,502	4,978	171,812	35	2,355	3,989	138,421	...	.	135	5,893	26	1,045	4,185	147,714
Punjab	*6	*369	1,434	72,243	...	...	127	5,557	57	1,360	1,624	79,529	4	335	1,659	84 646	...	.	55	3,229	15	762	1,733	88,972
Central Provinces	192	14,032	740	50,879	68	4,101	583	24,692	100	3,311	1,683	97,015	121	6,775	659	43,499	34	7,696	503	22,968	76	2,745	1,493	83,683
Burma — Upper	...	...	...	...	...	...	...	..	..	.	..	...	...	..	...	...	.	...	515	12,341	2,806	38,670	3,321	51,011
Burma — Lower	4	213	17	1,373	...	...	1,071	38,644	3,695	58,630	4,787	98,860	2	91	3	100	...	.	1,029	40,576	1,591	36,776	2,625	77,543
Assam	22	303	1,242	35,933	...	...	413	12,660	72	2,010	1,749	50,906	35	614	1,155	32,057	...	..	889	27,680	138	4,151	2,217	64,502
Coorg	61	2,656	5	302	...	...	2	84	...		68	3,042	62	3,428	5	399	...	...	4	193	...	...	71	4,020
Hyderabad Assigned Districts	543	28,924	16	2,113	...	.	240	5,091	98	1,178	897	37,306	55	2,799	525	28,942	...	...	547	11,642	109	1,367	1,236	44,750
Total	948	51,746	14,131	644,565	1,701	94,564	51,881	1,303,330	16,012	286,912	84,673	2,381,217	486	22,868	15,572	741,174	1,970	115,644	54,146	1,434,436	19,707	366,302	91,881	2,680,424

* Inclusive of 2 schools maintained by other Departments of Government with 92 pupils.

† Inclusive of 8 schools, with 271 pupils, aided by the Department or by Local or Municipal Boards, though under public management.

Number of Scholars in Primary Schools for Boys.

	1886-87.	1887-88.	1888-89.	1889-90.	1890-91.	1891-92.
Madras	358,641	365,887	389,394	414,943	477,999	517,638
Bombay . . .	403,717	409,164	428,928	440,672	467,967	477,031
Bengal	1,080,389	1,103,758	1,097,901	1,085,832	1,071,076	1,123,560
North-Western Provinces .	171,812	163,280	146,445	145,412	149,513	147,714
Punjab . . .	79,529	77,033	85,861	84,763	83,249	88,972
Central Provinces . .	97,015	98,461	96,158	79,923	80,877	83,683
Upper Burma . .	...	...	...	13,791	42,325	51,011
Lower Burma . .	98,860	101,533	77,643	81,804	72,620	77,543
Assam	50,906	55,819	60,347	60,552	60,119	64,502
Coorg	3,042	3,202	3,592	3,636	3,798	4,020
Berar	37,306	37,432	39,371	40,716	43,659	44,750
	2,381,217	2,415,569	2,425,640	2,452.044	2,553,202	2,680,424

The number of schools increased during the five years by 7,208 or 8·5 per cent., and the number of scholars by 299,207 or 12·6 per cent. The second table shows that this increase is by no means equally distributed over the five years, the total gain in the first three years being only 3 per cent. If the totals for individual provinces are examined, it will be found that the number of scholars is subject to great fluctuations, for which in many cases no reason can be assigned. In the last Bengal report the Director writes :—

"The rise or fall in the number of primary schools appears to depend on such a "variety of causes—the state of the public health, the price of food-grains, floods or "drought, and finally the resources of the District Boards, by whom chiefly they are aided— "that it is hardly possible to offer any satisfactory explanation of the large fluctuations "that take place from year to year, especially as the reporting officers, who take particular "care to enumerate the causes which may have been at work in bringing about a falling-"off, apparently find themselves at a loss to assign any reason when a sudden increase "has taken place."

On account of the local character of the causes, the fluctuations are more violent the smaller the area taken, since a decrease in one division is often accompanied by an increase in a neighbouring division. A single example will show the unstable character of primary schools, or at least of those under private management. In 1890-91 the Dacca Division lost 533 lower primary schools and 19,123 pupils, out of a total of 6,017 schools and 137,319 pupils, mainly on account of floods ; but in the following year the whole of the loss was made good. The average earnings of a lower primary guru in Bengal, not quite four rupees a month, come so near to starvation point that a very slight decrease in the number of pupils must compel him to close his school and seek more lucrative employment. Half of the schools of this class in Bengal contain less than 20 scholars. Schools under public management are naturally of a much more stable character, and in the provinces where they predominate the fluctuations are much less violent, and can generally be accounted for. In these provinces, too, the schools are much larger: the average strength of a primary school is 29 pupils, and in Madras, Bengal, Assam, and Burma, the four provinces where schools under private management form the majority, the average is from 15 to 29, while in the other six provinces with a majority of Government or board schools the average is from 35 to 57. The average for Government schools in all provinces is 47, for board schools 48, for schools in Native States 59, for aided schools 26, and for unaided schools 19.

The increase in the number of pupils is greatest in unaided schools, where it amounts to 79,390, or 28 per cent.; schools in Native States come next with a gain of 20,980 or 22 per cent.; board schools show an increase of 96,609 or 14 per cent.; and aided schools of 131,106 or 10 per cent. Government schools alone show a decrease, owing to the transfer of a large number of schools in Berar to the charge of District Boards.

Three provinces show a decrease in the number of pupils, but in two of them this is merely nominal. In the Central Provinces middle vernacular schools were formerly classed as primary, but now they have been included among the secondary schools Making allowance for this, there is a gain of about 5 per cent. In Burma a large number of schools have been transferred from the list of public institutions to that of private institutions, because they failed to come up to the standard fixed by the Department. In the North-Western Provinces there has been a real decrease of about 14 per cent., and the figures given in the last Review show that the decrease commenced at least two years earlier. One of the reasons assigned for this by an Inspector of Schools is sufficiently interesting to be quoted *in extenso*:—"A considerable change in the manners "and tastes of the people is, as might be expected, taking effect under British "rule. The example of cities and towns is permeating more and more to villages. "For instance, there is greater competition in dress. Men spend more than they "used to do for the sake of appearance in public, and what they now buy are not "the country-made stuffs, which are coarse, but very durable, but the thinner and "less durable materials which come from England and which, though bought at a "cheaper rate, are more expensive in the end, because they do not last so long. "Men are not contented, as they once were, with the country oil for light during "the night. They are acquiring a preference for kerosine oil. This oil is a tempt-"ation because it is cheaper, but it leads to the additional cost of a lamp of some "kind in which such oil can be burnt. In the public festivals or holidays there is "more competition for display of every kind, and this of course entails more "expenditure. Men are beginning to use shoes and umbrellas who formerly "considered such articles quite unnecessary. The means of communication have "been so greatly improved and are so much better protected against burglars that "men are under a greater temptation to travel. Litigation grows apace, which "is rather favoured than otherwise by the facilities held out by the courts. A "peon, when he brings a notice from the court, expects to be fed by the house to "which it is brought. Again it is becoming the fashion, owing to the facilities "held out by the post office, to write letters to friends at a distance; but letters "are almost always sent 'bearing' when they are addressed to a village, and the "recipient has therefore to pay highly for the pleasure of receiving a letter, be-"sides having to give a meal to the peon who brings the letter. But while tempta-"tions to increased expenditure are springing up on every side, there is not the "same evidence, in villages at least, of increased incomes or new means of earn-"ing a livelihood. In villages the only industry worth considering is agriculture, "and in this the same competition has sprung up as in other directions. Land "lets at higher rent than it formerly did; and so of Indian villages it might be "said, as was once said of Rome, *Hic vivimus ambitiosa paupertate omnes.* This "is of course a very cursory and incomplete sketch of the social changes at work "under British rule; and my only object in alluding to them is to show that when "there is a greater drain of expenditure into other channels, a smaller margin is "left for education" . . . . . "Owing to the causes sketched in the previous

"paragraph, it is not so easy as it was for tenants and small landlords to find the "means for hiring field labourers; and men of the class of field labourers are less "and less disposed to acquiesce in their traditional position as serfs and to hold "the plough for nothing. Consequently the sons and nephews are sent to work in "the fields instead of being sent to school. This, as I have been informed by a "Chattri on whose intelligence I can rely, is especially the case among men of his "own caste. Here another consideration comes into play. It has been found, "and very naturally, that boys who work for the upper primary examination, and "who therefore remain at school till they are from 13 to 15 years of age, are not "merely averse to field labour, but physically unfit for it. Not one in a hundred "of such boys can get literary employment. So they stay idling at home, and "many parents have seen reasons to regret that they ever sent their sons to "school." Other reasons assigned for the decline in the number of scholars are enhancement of fees, stricter registration of attendance, and the prevalence of epidemic diseases.

The most rapid rate of increase is shown in Madras, where it amounts to 44 per cent.

113. Systems of Primary Education: Departmental Schools.—In every province except Coorg the number of primary schools managed by the Department is very small in comparison with the whole number of such schools, and in nearly every case there is good reason for the retention of the control of these schools. In Madras the number of schools has increased from 57 to 136; 110 of these are in the Agency tracts, where there is no chance of schools being established in any other way, 10 are Mahomedan schools in Madras, and the rest are practising schools attached to Government training schools. In Bombay there are 20 police schools, about half of the remainder are practising schools, and the others are in remote places, including Aden. The five schools in Bengal are in such backward localities that it is impossible to raise a single rupee for their support from private sources. In the North-Western Provinces the 35 schools shown in the table receive nothing from provincial revenues; most of them, if not all, are offshoots of the zila schools which had not sufficient accommodation for all their scholars. In the Punjab there are no departmental primary schools except those attached to the vernacular training schools. In the Central Provinces the number is much larger; some of the schools are in municipal towns, and the remainder in rural tracts where there are no District Councils; the former are now being made over to the Municipal Committees wherever they are willing to take the responsibility; 19 schools for boys and five schools for girls were so transferred in 1891-92 In Burma one school "in a remote corner is persevered with experimentally," and the other is a practising school. The Assam returns show 35 schools, but 20 of these are really aided schools under the Kachari Mission; they were "classed as departmental on the ground that the pupils pay no fees, "and that the grant-in-aid was not dependent on the Mission contributing to "supplement it in a certain fixed proportion." Besides these, there are 11 schools in the Naga and Garo Hills, 1 police school and 3 practising schools. In Berar all the Government primary schools were made over to District Boards in the beginning of 1892, except those in one district to which the Rural Boards Law has not been made applicable. In Coorg there are no Local Boards to take charge of the schools.

114. Board Schools.—The total number of schools managed by District Boards has increased from 13,318 to 14,531, and the number of their pupils from 564,802 to 639,883. Municipal Board schools increased from 813 to 1,041, and the pupils in them from 79,763 to 101,291. These figures do not agree with those given in General Table VII, because the 508 schools in Berar with 26,689 scholars, whose transfer to District Boards has been mentioned in the preceding paragraph, have been shown as Government schools in all the tables giving the expenditure for the whole year, but as Board schools in the tables giving details regarding the state of the schools at the close of the year. In Madras District Board schools have increased by 1,550, and Municipal Board schools by 155. Most of these schools were formerly aided on the "combined" system, but on account of the unpopularity of this system, they were taken over by the Boards and placed on the "salary-results" system. The latter system is considered to be the most suitable for educationally backward districts, the rewards to be obtained under the results system being too precarious to induce private persons to establish schools. On this point the Director says:—"I have "no longer any doubt that Boards can do more for primary education directly "by opening salary-results schools than by simply granting aid in the shape of "results grants; in fact, I am persuaded that unless this system is universally "adopted for rural tracts, an efficient system of elementary and lower "secondary education will never be established in this presidency." In Bombay there have been many transfers of schools from one class of Boards to another, including 45 schools in Bombay which were returned as District Board schools in 1886-87 and as municipal schools the next year. The increase in both classes taken together is very small. In 1887 the Municipalities of Bengal maintained 27 primary schools, but most of these have been converted into aided schools, and in 1892 only 3 schools were managed by Municipal Boards. There were no primary schools under the management of District Boards in 1887, but in the following year 11 departmental schools were transferred to their control, and 10 of these are still shown in the returns. In the North-Western Provinces the number of village schools maintained by Local Boards decreased by 803, or over one-sixth, while the municipal schools fell from 103 to 60. In 1887-88 a new Code of Regulations for Public Elementary Schools was published, one of the provisions of which defined the rate of salary to be paid to teachers in primary schools. The low rate prevailing before the introduction of this Code may be imagined from a statement made by a District Officer that "in some instances assistant masters draw less pay than a punkah coolie." The new rates were higher than the old ones, and the Boards were compelled to close a considerable number of schools in order to find means of paying the teachers in those that were retained. Nearly all the schools that were closed are said by the inspecting officers to have been worthless or nominal, the teachers being inefficient, and the attendance of scholars very much less than it was represented to be by the teachers, who habitually falsified the registers. Hence the real loss of pupils is probably much less than it appears to be from the returns. In the Punjab the number of District Board schools has increased by 227, most of these being zemindari schools intended for the sons of agriculturists. Schools of this class were first opened in 1887, but they are becoming more and more unpopular with the people, who constantly strive to convert them into ordinary primary schools. Municipal schools show a slight decrease from 102 to 100. The decrease in the number of Local Board schools

in the Central Provinces is due to the change of classification of middle vernacular schools already alluded to. Municipal schools have increased from 2 to 39 at the expense of Government schools In Assam the schools under Local Boards are of two classes—(1) schools in backward tracts, in which the teachers receive fixed salaries from the Boards and the fees of the scholars, and (2) schools in more advanced places, in which the fixed salaries given are smaller; but the teachers get in addition to the fees the amount earned by the scholars under the system of payment by results. The schools of the second class are converted into aided schools as soon as they are strong enough to support themselves. This accounts for the loss of 103 schools, which is only partly compensated by a gain of 16 municipal schools. In Burma 14 out of 17 board schools have been closed as "unnecessary and prejudicial to private enterprise." In Coorg there are no Boards, but five schools are managed by Municipalities.

As might be expected the municipal schools are much stronger than District Board schools, which are generally situated in villages. The average number of scholars in the former is 97, and in the latter 44; in 1886-87 the numbers were 98 and 42.

115. Aided Schools.—Aided schools increased during the five years by 2,265; they contain 53·5 per cent. of the entire number of scholars in primary schools. In some cases they receive aid direct from the Department, in others aid is given from District or Municipal funds; some are the indigenous schools of the country, which have adopted departmental standards and methods of instruction, others are schools established by missionary and other societies; some are aided by fixed monthly grants or stipends to the teachers; some receive the amounts earned by their pupils at annual examinations; some receive aid under a mixture of both systems, while some receive merely a small annual amount for submitting returns. In consequence of these differences, and of the extreme importance attached to aided primary schools, it will be necessary to go more fully into details than in the case of schools under public management.

Madras.—In Madras the number of schools rose from 7,232 to 9,266, and the number of pupils from 213,815 to 276,350. This increase was continuous, an abnormal rise in 1887-88, followed by a fall in the following year, being due to a change of classification. The increase would have been much more rapid but for the transfer of a large number of schools on the "combined" system to the management of Local Boards, which was explained in the preceding paragraph. These schools "occupied an anomalous position in the educational "system of the presidency. Though aided they were not aided in accordance "with the provisions of the Grant-in-aid Code. The manager or master received "a fixed monthly allowance from the Board, but he was in no sense a servant "of the Board. Hence these schools had not the benefit of that supervision and "control which a Board salary-school enjoys, and little or nothing could be done "to provide suitable school-houses, furniture, class-books, or apparatus because "these were the property of the managers or masters and not of the Board. The "schools were also inferior to those on the purely results system, in this that the "master, who was also usually the manager, was deprived of part of the stimulus "to exertion which is found in results schools proper, inasmuch as he received only "a part of the results earnings." The operation of the new Grant-in-aid Code has also to some extent checked the increase in the number of aided schools by imposing stricter conditions. The payment of grants, especially those from

provincial revenues, at rates less than the maximum allowed by the Code, has also tended in the same direction: the funds at the disposal of the Department were insufficient for the payment of full grants, and the Director was compelled to refuse to give any grants to schools in the presidency town other than "poor" schools. With reference to the character of the schools, the Director says. "In Madras more than in any other province the system of primary educa-"tion has grown out of the indigenous system, and hence the transition is slow "and intermittent, though the system evolved from this source is likely to secure "a better hold on the social life of the people than an imported one." The exact number of primary schools aided under each of the recognised systems is not shown in the report, but from a table giving the schools that presented candidates for examination by the Code standards it appears that nearly all of the schools are aided under the results system.

Bombay.—In this province the number of aided schools has increased by 1,004, and the number of scholars by 38,154. Sind alone has furnished 785 additional schools and 25,604 scholars, almost all of which are the Urdu or Koran schools for Mahomedans referred to by Sir Alfred Croft in paragraph 178 of the last review, where he says: "The masters, and the parents of boys attend-"ing them, are said to be extremely averse to the introduction of any secular "subject into the course." The way in which these schools have been brought within the sphere of departmental influence and induced to accept aid is shown in the following extract from a report by Mr. Jacob, Inspector of Schools in Sind:—

"The change which has lately come over the Mullahs in rural mosque schools is very "striking to any one who can recall what their attitude towards the department was five "years ago. In 1873 Mr. Fulton drew up some excellent rules and Sindhi standards for the "encouragement of these schools, and he and his able successors made every possible effort to "induce the Mullahs to accept them. But the fact remains that down to the year 1887 there "were hardly half a dozen rural mosque schools on our register. I was informed when I "came to Sind, and I verified the fact for myself, that the Mullahs tenaciously clung to their "own method of teaching, with the Koran as their sole or chief instrument, and that they "were highly suspicious of our proffered gifts. It seemed to me, therefore, that other "means must be adopted to induce them to come within the pale of public instruction. In "his recent book on the Administration of the Bombay Presidency from 1885 to 1890, Sir "W. W. Hunter states that it was by the careful inspection of their schools that the Mullahs "were won over. But this does not adequately account for the change which came over "them in 1888,—a change from suspicion to trust, from indifference to anything besides "reading or recitation from the Koran to a readiness to teach boys and girls to read, write "and cipher. It is true that every school in the province was carefully inspected *in situ*, "but what gained the Mullahs over was the extreme simplicity of the terms, which the new "Grant-in-aid Code enabled me to offer them. I accepted their teaching as I found it, and "undertook to reward them for its results without attempting to force it to a higher level, "and without imposing any conditions except (1) the daily registration of their pupils' at-"tendance in a bound roll which I offered them as a gift, and (2) the annual inspection of "their schools *in situ* by the department. All the schools taught the reading of a usefu "cnaracter, and this was a germ of secular good which was capable of further development "under the natural stimulus which our grant-in-aid system almost always gives to the re-"cipients of its rewards. The Mullahs trusted us, and we have kept and shall continue to "keep faith with them. But our simple system of rewards has, as I anticipated, proved "irresistible. In every part of the province the Mullahs have freely come forward, and have "spontaneously widened the scope of their teaching in the hope of bettering their attend-"ance and increasing their grants. So that now a very large number of their schools teach "both the reading and writing of the Koran, while more and more of them are every year "adding to their course Sindhi, Persian and the four simple rules of Arithmetic. This "step forwards is so well-grounded in reason and confidence that the Mullahs will never, "I think, fall back to their old ways."

In 1890-91, the same Inspector was able to report that almost all the indigenous schools in Sind that were worth aiding had been gathered in. "But "this advance is not a numerical gain merely. The schools have begun to "improve in efficiency. In the larger schools assistant teachers have been "employed, and the range of the teaching has been widened. . . . . All the "Deputies report that boys are beginning to join the Local Board schools after "finishing their course in the indigenous school; and the number will doubtless "increase year by year, now that the indigenous schools teach the elements of "Sindhi and Arithmetic. On the other hand, a few of the indigenous school-"masters, who have some reputation as Persian scholars, are able to attract boys "from the higher classes of the Local Board schools; and this tendency is not "one to be discouraged, as it widens the range of a village boy's studies and "probably keeps him a longer time at school." In one district, Hindu children were found attending mosque schools. The aided schools of Sind include another interesting class of indigenous schools, migratory schools started by an Akhund named Dad Muhammad in the hills of Kohistan and other wild parts of the Karachi District. "The Jakhrias, who principally attend Akhund Dad "Muhammad's indigenous schools; belong to an aboriginal hill-tribe. They lead "a pastoral life as a rule; they are gradually learning to acquire more settled "habits, and may now be found squatted at certain seasons of the year at parti-"cular spots for a much longer time than they were before. But the slightest "appearance of rain in the hills may still induce them to move their habitation at "a moment's notice, in hope of finding better and more abundant pasture for "their cattle." In 1891-92 there were 33 of these schools with 1,611 pupils, and in another district eight schools of a similar class with 189 pupils. The increase in the number of schools aided by Local Boards is not very rapid; "the Boards "provide for such aid being given, and every effort is made to bring the masters "within the circle, but without any great success." The reason assigned for this is that the people if they want a school at all, claim to have a Board school, because it is more efficient than an aided indigenous school, and also because they pay the cess from which the Board schools are maintained. In some cases when an indigenous school is aided, the people refuse to pay fees, and the school has to be closed, as the grant alone is not sufficient for the maintenance of the master.

Bengal.—The fluctuations in the number of lower primary schools in Bengal have already been alluded to: in the first three years of the period there was a loss of 3,215 schools of this class, and of 53,516 pupils, schools for Europeans being excluded; during the last two years there was a gain of 68 schools and 33,453 pupils. Upper primary schools are much more stable; there was a small loss of schools and pupils in 1887-88, but a continuous increase afterwards, the total gain amounting to 428 schools and 17,789 pupils. In explaining the great loss of lower primaries in 1889-90, after alluding to variations in the mode of classifying maktabs, or Koran schools, the Director writes: "The fact seems to be that apart from any loss or gain "arising from imperfect classification, the large decrease which from time to "time is recorded in the number of lower primary schools is due to two causes "—a permanent and a temporary one. The permanent cause is the thoroughly "precarious and unstable tenure of the lowest fringe of these schools. Hund-"reds, one might say thousands, of them are set up, carry on feebly and "intermittently for a longer or shorter period, and then disappear. They come

"and go without leaving any trace. The 'charges for abolished schools' "have averaged R14,000 in the last three years. The average payment "from public funds to a lower primary school is R8 or R9 a year. This is "a mean between the highest rates of payment, amounting to R40, R50, or "R60, and the lowest rates, which do not exceed R3, R4, or R5. It would "be a very liberal estimate to take Rs. 7 as the average payment to each "of the 'abolished' schools. If that estimate be taken, it would follow that "something like 2,000 schools, of the fluctuating and unstable kind just de-"scribed, had been abolished during the year; and consequently that new "schools of a generally similar character had been opened, to a number some "hundreds short of this. The question arises, what advantage does the country "or does education gain from spending money on schools of this kind? The "expenditure seems to make no appreciable impression upon the ignorance of the "rural population. A boy does not learn even the three R's to any extent that "will be of the slightest permanent service to him, unless his school education is "continued with fair regularity through a certain number of years. If he goes to "school for six months now and for six months two or three years hence, accord-"ing to the casual opportunities afforded by the visits of some wandering guru to "the village, he will rapidly forget even the little that he has learnt, and, when "he grows to be a man, will not be able to read a pottah with understanding or "to check the simplest account.

"Payment for these services would be money thrown away except for one "consideration. It keeps constantly before the people the sympathy and "interest which the Government takes in their education; and it is also true "that out of such small beginnings good and useful schools are not infrequently "developed. Still, with the lamentably small amounts at our disposal for pri-"mary education, it is necessary, in the interests of economy and of the schools "that serve the real purposes of education, that discrimination should be exer-"cised. Instead of so casting our net as to bring larger and larger numbers of "schools within its sweep, it would seem to be a safer and better course for the "present to limit admission to the reward examination to schools that satisfied "certain conditions as to number and progress of pupils as determined by inspec-"tion *in situ*, and further to declare no school so admitted to be entitled to any "reward unless it earned at the examination a certain minimum sum. 'The "'consolidation rather than the extension of the existing primary system' was the "policy accepted by Government a few years ago, when the primary grant "ceased to expand; and until we can from one source or another secure a few "lakhs more for annual expenditure on primary education, I should still regard "that policy as a sound one.

"The temporary cause to which I referred at the beginning of this paragraph "as explaining the falling-off in the number of schools is the frequent and harass-"ing delay which is complained of in the payment by District Boards of the sums "earned by gurus at the examinations. A guru in a small village cannot afford "to wait months for the reward he has counted upon, and he betakes himself to "some other occupation. As District Boards get more familiar with their work, "this obstacle to progress may be expected to disappear." With regard to this temporary cause, it may be remarked that the same complaint is constantly made regarding the District Boards of Madras, though they have been in existence long enough to become familiar with their work. The Assam Director also

states that in one district he found that the payments to some schools were more than twelve months in arrears.

In Bengal, as in Madras, primary schools receive aid in the form of fixed stipends or on the payment-by-results system. The latter system is the one recommended by the Education Commission for adoption except in backward localities or under special circumstances (IV, 7), but when the control of the primary grant was transferred to the Boards, the policy which most of them at the outset seemed to favour was that of gradually replacing the results by the stipendiary system. It is unfair, however, to lay the blame entirely at the door of the Boards, for the fault is very often due to the influence of the subordinate inspecting officers who advise the Boards and who look to the obvious fact that stipendiary schools are the best. Their superiority is due to the fact that schools which show good results year after year are selected to receive stipends, and after they have been placed on the stipendiary list they retain their superiority owing to their better financial position and greater stability. In 1890-91 the average grant paid to a stipendiary lower primary school was four times the average grant to a non-stipendiary school, and the rate per scholar in the former three times that in the latter. The difference in the quality of the education given in the schools was not considered sufficient to justify such a large difference in the expenditure, and as there were at the time over eight thousand unaided primary schools waiting and hoping to receive aid from public funds, the Director proposed to set free a part of these funds by revising the system of stipends. His proposals received the general approbation of Government and are thus summarised in the report for 1891-92:—"Stipends might "continue to be given to upper primary schools, provided the amount so awarded "did not absorb an undue amount of the grant for primary education. In the "case of lower primary schools it was proposed to recognise three classes—(1) "those that are well established and numerously attended and have sufficient "fee-receipts to secure their continuance: for these no stipends were thought "necessary; (2) schools in backward tracts where, unless a substantial stipend "of Rs. 3 or Rs. 4 were given, it would be impossible to secure the maintenance "of a school: these should be maintained with stipends and the fees of pupils; "(3) schools intermediate between the two former, whose stability would be "insured by the promise of a small stipend paid by way of retaining fee, in sums "of from Rs. 3 to Rs 6 a quarter, which should be regarded as advances "payable out of the reward they might afterwards earn at the examinations." Under the Local Self-Government Rules published in April 1890 no addition can be made to the list of stipendiary schools without the sanction of the Director.

North-Western Provinces.—In these provinces aided schools form a very unimportant section of the primary system; the few that exist are mostly poor schools under missionary management. "A very large proportion of students "is in the lower primary section; and even of these a considerable number do "not go much beyond the alphabet." Some branches of zila schools, aided by Municipalities, appear to be included in the list. The indigenous schools will be referred to later.

Punjab.—Here also aided schools form a very small minority of the primary schools; most of them are merely departments of secondary schools. The number has decreased from 127 to 55, partly on account of the inclusion

of the schools in the returns of the parent institutions, but chiefly on account of the transfer of a number of schools to the list of private institutions, aid being still given to them under the rules for indigenous schools. The schools so transferred are attended chiefly by low-caste boys. In 1891-92 there were 582 aided schools classed as private, because they were examined under standards differing from the ordinary lower and upper primary standards. These schools contained 23,607 scholars and earned Rs. 38,221. Of these schools 340 were true indigenous schools; the whole number of elementary indigenous schools was 1,259, and of their scholars 25,618.

Central Provinces.—In these provinces after making an allowance for the schools transferred from the primary to the secondary stage, there is a decrease of about 50 schools and 200 scholars. In nearly every district the number of scholars has increased, but in one district the loss was so great as to exceed the total gain in the others. The district of Betul is a very backward one, inhabited chiefly by aboriginal tribes; in the beginning of 1888-89 there were in the district 66 indigenous schools aided on the results system, and partly supported by subscriptions from the people. "It was represented that these subscriptions were not "altogether voluntary. The mode of collection also was objectionable, chaprasis "being employed to levy subscriptions, a system which opens the door to oppres-"sion. The Deputy Commissioner, therefore, ordered that it should cease. The "consequence was that a large number of the indigenous schools collapsed, and "a foolish rumour was spread abroad that the Sirkar was opposed to education." This rumour seriously affected the attendance in the schools managed by the District Council, and though confidence was ultimately restored, only a small proportion of the indigenous schools were reopened, the total loss during the year being 44 schools and 1,650 pupils. The district received considerable attention from the Department during the following year, and efforts were made to revive the schools, but without success; and at the close of 1891-92 the number of schools was less than in 1886-87 by 31, and the number of scholars by 1,451. This incident may be taken as an illustration of the oft-repeated assertion that the results system is unsuitable for educationally backward places. Almost all the aided primary schools are indigenous, but a few are managed by missionary and other societies. All the indigenous schools are aided on the results system. It is stated that one of the main obstacles to the extension of primary education is the difficulty of obtaining suitable teachers. "The indigenous "school-master, the back-bone of the village school, does not exist in these "provinces." The teachers who have gone through a course of training in a normal school are too expensive for indigenous schools, so that the only persons available are untrained lads who have passed the upper primary examination, and who are "barely competent to teach the small *modicum* of reading, writing "and arithmetic required."

Burma.—The table shows a decrease of 42 schools, but an increase of 1,932 pupils, but in consequence of a different method of classification these numbers cannot be fairly compared with those of other provinces: the details are therefore given in a separate paragraph.

Assam.—In this province there has been a continuous and rapid increase in the number of schools and scholars: the former have increased from 413 to 889, and the latter from 12,660 to 27,680. There are two classes of aided

primary schools, which receive aid on different systems: the first class consists of schools intended for aboriginal tribes, which are managed by missionary societies, and receive fixed grants; the second class consists of pathsalas aided on the payment-by-results system. The first class contains 191 schools with 3,792 pupils, most of which are in the Khasi and Jaintia Hills. Those of the second class are not, strictly speaking, indigenous schools; most of them are started by ex-pupils in the hope of obtaining Government aid.

Berar.—Here also the number of aided schools has increased rapidly throughout the five years. In 1886-87 there were only 240 schools with 5,091 pupils, but five years later there were 547 schools with 11,642 pupils, both schools and pupils having doubled in the interval. Four of the schools are mission schools, or schools intended for low-caste boys, and these receive fixed grants. The rest are all indigenous schools aided on the results system, but they are gradually losing their indigenous character, as the class of indigenous teachers is dying out and being replaced by men who have been educated in the departmental schools. One of the inspecting officers writes: "All these schools "are in a very efficient state, and are conducted by teachers who have made it "their profession to establish schools and to earn a good living thereby. They "have received their education in Government schools, and follow all their rules "and regulations. The race of the old *pantojis* is fast dying out as they have "found, much to their mortification, that their produce has no marketable value "and that their living has become precarious consequently." As in other parts of India, however, these schools lack stability; they prosper in good seasons, but disappear owing to want of support as soon as hard times set in.

Coorg.—In Coorg the four schools shown in the table are all lower primary schools maintained by missionary societies.

116. Unaided Schools.—In the provinces where the aided schools are indigenous institutions, the schools in the unaided list include those indigenous schools that have adopted the departmental standards and are preparing to take their place in the aided list, and those that have failed to earn rewards at the annual examinations, and have therefore been struck off the aided list. The following extract from the Madras report for 1889-90 shows the way in which schools are converted from *private* into *public* institutions, and though the special features of the statement apply to Madras alone, the general outline would be equally true of Bengal and Burma, the only other provinces in which unaided schools are very numerous:—

"This work is mostly done by the agency of inspecting schoolmasters, whose chief "duty consists in paying periodical visits to indigenous schools, in instructing the masters "how to keep proper registers, in helping them to adopt and follow the Code curriculum, "and in numerous other ways preparing their schools for being brought under inspection. "The transition of an indigenous private school to the status of an unaided school, which is "the first change it undergoes, is not so easy as might be supposed. Frequent visits must "be made by the inspecting schoolmaster before he succeeds in prevailing upon the teacher "to make the least movement towards the reorganization of his school. Not only the "village teachers, but the villagers themselves, have to be made to understand the advan "tages to be derived from placing their schools under departmental control, with the "prospect of ultimately receiving aid from public funds. The provisions of Chapter III of "the Grant-in-aid Code and the curriculum to be followed have to be carefully explained. "In short, the teacher being as a rule a man of very low attainments, he has himself to "be taught several of the most elementary truths connected with his work. The village "people being as a class entirely uneducated, they are frequently hostile to innovations

"which they cannot see to be improvements. If not actively hostile, they are apathetic. "It is not enough that the inspecting schoolmaster makes a convert of the teacher; the "villagers must also be carried along with him, since, without their co-operation, the teacher "is helpless. Entirely depending on them for maintenance; the teacher must work in "accordance with the methods that approve themselves to his employers, and he will "naturally think twice before giving up the comparative certainty of remuneration in kind "from the parents of his pupils for the somewhat remote chance of a results grant from "public funds.

"But the difficulties are not at an end when once an indigenous school is brought "under inspection. Many of the initial difficulties still remain and fresh ones arise. It may "be that the villagers do not approve of their children being taught to read printed books to "the neglect of cadjans. If so, nothing is more likely to dry up the fountains of their liber-"ality in the matter of remuneration than this breach with time-honoured custom. They "begin to pay the school-fee meagrely and irregularly, and eventually withhold payment "altogether. The teacher now finds himself in an unenviable position. He has broken "with the old ways too far to make it expedient to go back, while he has not gone far "enough on the new path to make his future course at all reassuring. Sometimes he "temporizes, teaching from printed books on the new methods in order to satisfy the inspect-"ing officers and from cadjans on the indigenous methods with a view to keep favour "with his constituents. At this stage, as in the previous and subsequent stages of his "development from the condition of an indigenous to that of a public schoolmaster, the "village teacher stands in the utmost need of all the help which the trained intelligence, the "prudent counsel, and the sympathetic encouragement of inspecting officers can afford "him. That Inspecting schoolmasters are not always well qualified to give this help, I readily "admit. But that as a body they have been instrumental in smoothing the way of indi-"genous schoolmasters, in improving the methods of instruction in elementary schools, and "in extending the blessings of education to outlying villages which otherwise would not "yet have been reached, cannot, I think, be questioned. And while I would recommend "every thing being done that is practicable to improve the qualifications of Inspecting "schoolmasters, I doubt whether a more highly-paid agency would do the work as well as "it is now done. What is wanted is a body of men, of a status not so high as to place "them out of touch with the village schoolmaster in his petty trials and triumphs, and "yet high enough to make their intercourse with village teachers tend always to the "improvement of the latter. Composed of the right kind of men and working under the "judicious supervision of the higher inspecting officers, this agency will, I feel sure, come "to be regarded as an indispensable part of the organization for the spread of primary "instruction."

In Madras there is still plenty of material for the Department to work upon, for in spite of the large ncrease int he number of board and aided schools already mentioned, and an increase of 883 unaided schools, there are still 2,835 private elementary schools with 48,119 scholars, besides a number of schools in which children are taught to recite verses of the Koran. These are the figures shown in the returns; the actual numbers are probably much greater, for it is impossible to obtain statistics of all the schools of this class. In Bombay the returns show only 74 unaided schools, but 1,797 private or unrecognised schools, excluding Koran schools. It was pointed out in the last Review that it was believed "that a large number of schools which are unrecognised by the Department nevertheless conform to its standards." The later reports do not throw much light upon this question, but one Inspector states that in towns unrecognised schools serve as feeders to recognised schools, which indicates at east a similarity of standard. In Bengal unaided schools have increased in number from 7,077 to 9,133, and the number of scholars in them from 112,882 to 159,330. There has been a small decrease, from 570 to 549, in the number of elementary schools teaching a vernacular only, and containing 10 or more pupils, but besides these there were 3,994 schools of the same class in 1891-92 containing less than 10 pupils; such schools were not shown in the returns for

1886-87. In the North Western Provinces and the Punjab the number of unaided schools is very small; the private institutions of these provinces have already been referred to. In Burma about half of the elementary schools are classed as private institutions, either because the number of scholars is too small, or because they do not come up to the departmental standards, but most of the schools in this list are regularly inspected, and have adopted to a greater or less extent the course of studies laid down by the Department. Fuller details of these schools will be given in the next paragraph. In the other provinces the unaided schools are chiefly schools that have failed to earn grants at the rewards examinations, and the number of private institutions is insignificant.

117. **Primary Education in Burma.**—In the last Review Sir Alfred Croft gave (paragraph 180) a full account of the primary system of Burma, which had not been described by the Education Commission. That system, or at least the part of it dealing with indigenous education, differs in so many respects from the systems of other provinces that the Department, while giving in the general tables the statistics required by the Government of India, have adopted a different method of classification of schools in the body of the annual reports. Primary departments of secondary schools are not separated from true primary schools, because they send up scholars to the same examinations, and the same tables show statistics of attendance and of the results of examinations. Girls' schools are included in the tables because a large proportion of the schools contain both boys and girls, and even the schools classed as girls' schools in Table III contain more boys than girls. In most of the schools the number of scholars shown in the returns means the number present on the day of inspection, and not on the 31st March, and as schools are registered which have a working session of only four months in the year, it may happen that some of the schools may be closed at the time of inspection, and others not at their full strength. This accounts for some of the variations noticed below, and it also makes the number of children under instruction appear less than it really is, for even if a school is inspected in the full season, some of the scholars are unable to be present.

A brief recapitulation of the principal features of the indigenous system is necessary to explain the changes that have taken place during the last five years. Before the Department began to exercise any influence there were two classes of schools; in every town and village there were schools attached to the Buddhist monasteries, from which girls were excluded: in the towns there were also lay schools open to both boys and girls, which were managed and taught, not by persons adopting education as a means of obtaining a livelihood, but by men who had retired from active life, and wished to spend their last days in doing good to their fellow-men. In both classes education was free, and was restricted to reading and writing Burmese, and recitation of verses from the Pali scriptures, elementary arithmetic being added in a few instances. The course of instruction laid down by the Department for recognised indigenous primary schools includes Burmese, arithmetic, and in the upper primary section geography. Pali was made an optional subject, and some others have been added recently. When the system was extended to Upper Burma in 1889-90 it was reported that geography and arithmetic were unpopular subjects in the monastic schools, because they involved work and study on the part of the teachers, "while geography "rather upsets the theory of the universe sanctioned by Buddhism."

In 1886-87 there were 1,137 aided indigenous schools in Lower Burma with 41,357 pupils, of whom 7,322 were girls. Unaided indigenous schools numbered 3,783, and contained 60,483 pupils, including 3,083 girls. These numbers are far below those given for 1885-86 in the last Review, the disturbed state of a great part of the province in 1886-87 having caused a loss of about a third of the scholars. In 1887-88 there was a considerable increase in the number of aided schools, but in the following year there was a great fall in both classes, caused by a change in the rules for the recognition of schools. It was decided that no school should be recognised as a public institution unless it complied with three conditions—(1) that the working session should not be less than four months in the year, (2) that the average attendance should not fall below 12 scholars, and (3) that at least four of the scholars should have reached the lower primary standard in reading and writing. In consequence of their inability to come up to this standard more than half of the unaided schools were transferred to the list of private institutions. It does not, however, follow that these schools were placed outside the sphere of departmental influence, for schools classed as "private" are inspected and examined by the officers of the Department, and are placed upon the list of "public" institutions as soon as they come up to the departmental standard. During the last three years the fluctuations were very irregular, which is partly due to variations in the times selected for the annual inspections. In 1891-92 the number of aided schools was 1,077, and the number of scholars in them 43,318, 10,589 being girls. In the five years, therefore, there was a loss of 60 aided schools, but a gain of 1,961 scholars, made up of a loss of 1,306 boys and a gain of 3,267 girls. The number of unaided schools was 1,602, with 35,075 boys and 1,915 girls, the loss in the five years amounting to 2,181 schools, 22,325 boys, and 1,168 girls. In 1886-87 598 of the aided schools were monastic and 539 lay; in 1891-92 the number of the former class had fallen to 295, while the lay schools had increased to 775. The great decrease in the number of monastic schools is partly due to the withdrawal of money grants in the beginning of 1888-89, though they were still eligible for presents of books, maps, etc. The same cause also seems to account for a large part of the decrease in the number of aided schools in that year, though the Director does not refer to it when explaining the decrease. The decrease was, however, confined to monastic schools, and in 1891-92, when they were again declared eligible for results grants in money; there was a large increase in their number.

It was stated in the last Review that separate schools had been established for Burmese and Karen children. The fluctuations in the number of aided schools are confined to those of the former class, and in them the number of girls has increased continuously. In 1886-87 there were 941 Burmese schools with 35,203 children, and 196 Karen schools with 6,154 children. In 1891-92 there were 759 aided Burmese schools with 32,205 children, and 311 Karen schools with 10,743 pupils. Among unaided schools in 1886-87 there were 3,482 Burmese, and 301 Karen schools with 56,187 and 4,296 pupils, respectively. In 1891-92 there were 1,456 Burmese and 146 Karen schools, the number of pupils being 33,551 and 3,439. In the Arakan Division there is a third class of schools attended by Muhammadans; in 1887-88 a Muhammadan Deputy Inspector was appointed to superintend the schools of this class in the Akyab district, and in the following year 20 schools were brought upon the list, 13 schools with 323 pupils being aided, and 7 schools with 124 pupils unaided. Besides these there were 96 other schools that were not considered fit for recognition, and

were included in the list of private institutions; in the other divisions the total number of Muhammadan schools was only 28, and all of them were classed as Koran schools. In 1891-92 the number of aided schools had fallen to 7, but the number of scholars had risen to 370, while all the unaided schools had been transferred to the list of private institutions, because they failed to teach arithmetic in accordance with the departmental standards.

In Upper Burma the work of the department commenced in 1889-90, and consisted chiefly in the registration of existing schools. The condition for the recognition of a school as a public institution was merely that the average attendance should not be less than six scholars. In the first year the number of schools registered was 662, of which 624 were Burmese, 29 Muhammadan, and 9 Manipurian. The number of scholars in them was 13,375. These figures do not include schools under public management or missionary schools. The system of payment by results was extended to Upper Burma a year later, and at the end of 1890-91 there were 423 aided indigenous schools with 8,997 pupils, and 2,490 unaided schools with 33,927 pupils. In 1891-92 the number of aided schools had risen to 535, and the number of scholars to 12,940. The following extracts from the report for 1890-91 will show the nature of the work done by the Department in Upper Burma:—

"The educational outlook in Upper Burma is most promising. There is a strong "demand from the people for education and from school managers for departmental super-"vision. Vernacular education has undergone great improvement; the people approve of "the combination of secular with spiritual instruction, and wherever the certificated teachers "have been employed, there has been a very large increase in the number of pupils at their "schools. Broadly speaking, from Mandalay southwards schools are plentiful—English, "monastic, and lay. North of Mandalay the schools are scarce, and are almost wholly monas-"tic. In the far north education is at a very low ebb; not only can few of the people, who "are of mixed descent, read or write, but many school managers have not even a tolerable "knowledge of their mother-tongue ..... Most of the indigenous schools are said to have "been established in 1887. This really means that they were re-opened then. From the "outbreak of the war until eighteen months after the annexation of Upper Burma almost all "the kyaungs were closed. When the Government took up the question of education in "Upper Burma, the monks felt at first some distrust. Education and religion are in Burma "one and the same thing; and as their school texts deal with their religion, they naturally "thought our text-books would also deal with it. The pôngyis also are not now what once "they were or were credited to be. They cannot grasp any educational code that embraces "anything beyond the elementary work of an infant class. They lay the blame of the back-"ward state of education in the pôngyi kyaungs upon the people. The Burman parent certainly "leaves much to the will and pleasure of his child; the boy too often admits himself to a "school and withdraws himself from it on his own responsibility, and the parent will merely "be found grumbling at, and then acquiescing in, the boy's action. But the fault is certainly "not all on the parent's side, when the Upazins complain that the boys are so young and so "lazy that they take a year to learn their alphabet, and at least two more to learn to read.

"Now, however, all the refugees from Upper Burma, who sojourned for some time in "Lower Burma, have returned to their homes. They know well what the English system "of education is like. The natives see that the children, who attended schools in Lower "Burma throughout the period their parents stayed there, are far more intelligent than "their fellows who remained in Upper Burma; and they observe, too, that the clerical work "in the public and mercantile offices in Upper Burma is being monopolized by Lower "Burmans. The people are accordingly clamouring for a better and more practical educa-"tion to be given their sons in the pôngyi kyaungs."

Many of the pôngyis accepted the situation, and in order to improve their schools applied to the Department for the services of certificated teachers. "Everything was done by the Educational Officers to meet their wishes We "recognised from the beginning the position the pôngyis ought to take in edu-

"cation, and did all in our power, and successfully, to encourage them. The pro-"spect was a very pleasing and cheering one. Lately, however, intrigues among "a few of them have interfered and thrown back the work." In many cases, in consequence of these intrigues, pôngyis "had to decline to accept on his arrival "the services of the certificated teacher that they had applied for." In one case in the heart of Mandalay a pôngyi obtained a departmental teacher, and the result was that the inrush of new pupils was so great that he had to get the residents of the quarter to build him a new kyaung. In this unsettled state affairs remained up to the end of 1891-92; certificated assistant teachers had been supplied to 20 monastic and 21 lay schools, and a much larger number of schools had applied for such teachers, but the Department had not been able to furnish them, the supply not being equal to the demand.

In both Lower and Upper Burma there are two methods of aiding schools—the payment-by-results system and the salary-grant system. The latter is different from the system called by the same name in Madras, and from the stipendiary system of Bengal. The system is a form of aid intended for the development of indigenous and other vernacular schools by enabling such schools to secure the services of qualified teachers. No actual payment is made to a school under this system, but the teacher appointed receives the whole, or, in some cases, half of his salary direct from provincial or municipal funds. Teachers who hold second grade vernacular certificates can be appointed under these rules, the rate of pay being from R20 to R60 a month, according to the grade of the teacher. Salary grants are given in full for three years, after which they are reduced to half grants for two years, and then withdrawn. These grants are in addition to the results grants earned by the schools. In order to induce certificated teachers to open schools in poor and backward places, the rules provide for payment of stipends for the first three years, in addition to the amounts paid to the schools as salary and results grants. The amount of the stipend is R30 a month for the first year, R20 in the second, and R10 in the third. In schools where a certificated teacher drawing a salary grant is employed, a fixed proportion of the earnings of the school at the examinations for rewards is also paid to the teacher. For Karen schools there are lower rates of salary fixed on account of the lower qualifications required of the teachers. Recently the rules regarding Karen teachers' certificates have been revised, as the people were not satisfied with teachers of the lowest grade recognised by the Department. The rates now fixed are R12 and R8 a month for holders of first and second grade certificates.

Up to the end of 1890-91, the lower and upper primary examinations were the only standards of examination in indigenous schools, but from 1891-92 the examinations are annual, one examination being held a year before the lower primary, and one midway between the two examinations formerly recognised. Hence the results for 1891-92 cannot be compared with those for previous years, but a comparison of the results for 1886-87 with those for 1890-91 will show the progress made by the indigenous schools of Lower Burma. In 1886-87 442 scholars of Burmese schools passed the upper primary, and 1,842 the lower primary examination; in 1890-91 the numbers were 802 and 2,234. In Karen schools the progress was much more rapid; in 1886-87 the numbers were 82 and 418 and four years later they were 286 and 830. In 1891-92 the numbers of scholars who passed one or other of the two upper primary standards were—Burmese 1,316, Karen 618, Muhammadan 3; and for the two lower primary standards—Burmese 8,736, Karen 2,251, Muhammadan 36.

118. Provincial Standards of Examination for Primary Schools.—The Education Commission recommended that the standards of primary examination should be revised with a view to simplification, and to the larger introduction of practical subjects, and that no attempt should be made to secure uniformity throughout India (IV, 9). The Commission further recommended (VII, 18) that the lower and upper primary examinations should not be made compulsory, while the two recommendations (IV, 20) and (VII, 19) are equivalent to a suggestion that one of these examinations should be the test for admission to the lowest offices under Government. In accordance with these recommendations considerable changes have been made in the primary examinations of several provinces, and these changes must be explained before the results of the examinations can be used to test the progress of primary education in different parts of India. In naming the subjects of examination in each province reading and writing in the candidate's vernacular and arithmetic will be omitted, as these are everywhere compulsory; in arithmetic the standard in Madras, Burma, and Coorg is approximately one year lower than in the remaining provinces.

Madras.—The upper limit of the course in primary schools is determined by the primary school examination, which was established in January 1889, the first examination being held a year later. It is the public service test for "superior" appointments, the pay of which does not exceed R15, and generally for "inferior" appointments which are not of a menial character. It is also the examination of Standard IV for results grants, and is compulsory for pupils in that standard of all schools within twenty miles of a centre at which it is held. The compulsory subjects are those above named, and every candidate must pass in at least two of the following optional subjects :—

1. Elementary Science.
2. Geography.
3. English or other second Language.
4. Indian History.
5. Drawing.
6. Hygiene.
7. Agriculture.
8. Mensuration.

This does not exhaust the list of optional subjects in which a school can earn grants, for the list includes singing, drill, gymnastics and other subjects for which individual examination is unsuitable. The lower primary standard is a year below this, but it is merely the examination *in situ* for results grants, and there is no public test. The course for this standard is supposed to last three years, exclusive of the time spent in the infant class.

Bombay.—In Bombay an examination was established in 1887-88 for the award of scholarships tenable in middle schools; it is totally distinct from the public service test, for which separate examinations are held. The examination is restricted to four subjects, all compulsory, the fourth being the history of the province and general geography of India, with particular knowledge of the Bombay Presidency. This corresponds with Standard IV in the schools, but the latter contains in addition some native arithmetic. Standard II is considered to be the lower primary standard, and this is two years above the infant class.

Bengal.—There are two separate examinations for scholarships, one for the upper and one for the lower primary standard. No school is allowed to compete

for scholarships of both grades, though pupils may appear at both examinations and obtain pass certificates. Pupils in the primary departments of secondary schools cannot obtain primary scholarships, but in some districts pupils of middle schools are allowed to compete for certificates, though this is discouraged. The upper primary examination comprises the following compulsory subjects in addition to Bengali and arithmetic :—

1. History and Geography of Bengal only.
2. Euclid, Book I, 26 propositions, and Mensuration chiefly according to native methods.
3. Elements of Natural Philosophy and Physical Science, or an elementary treatise on agriculture.
4. A sanitary primer.

The lower primary standard includes Bengali, European and native arithmetic, zemindari and mahajani accounts, and an elementary sanitary primer. Below this, there are two standards of examination for schools aided on the results system, so that the course may be taken to cover three years from the time when a scholar leaves the infant class; from this stage to the upper primary standard the period is two years. There is no general test for admission to the lower grades of the public service.

North-Western Provinces.—In these provinces the upper and lower primary examinations are merely the annual examinations by the inspecting officers of certain classes of the schools, but on the result of the former the District Boards award scholarships to the best pupils of village schools to enable them to carry on their studies in town schools. The lower primary standard is two years above the infant class, and the upper primary standard two years beyond the lower. The course for the upper primary includes mensuration, a hand-book of Rent Revenue Law, and Geography, especially the Geography of India, Asia, and Europe, all of the subjects being compulsory. As the examination is held in the schools, or at centres, it is compulsory for all scholars, and no scholar can be promoted until he has passed the examination. It is not a public service test, the lowest qualification recognised by Government being the middle English or middle vernacular examination, which qualifies for appointments of the value of R10 a month; for lower appointments there is no educational test.

Punjab.—The examinations of the third and fifth classes of primary schools, the infant class being the first class, are regarded as the lower and upper primary examinations. Scholarships are awarded on the result of the latter, the competition for them being restricted to the district. Except with the previous sanction of the Inspector, no scholar can be promoted to a higher department of the school until he has passed in the compulsory subjects at these examinations. In addition to the usual compulsory subjects, a candidate for the upper primary examination may take up not more than four of the following optional subjects.—

1. Geography—the Punjab, India, Asia, and a general knowledge of the map of the world.
2. Mensuration.

3. Common things, defined as the subject-matter of a set of readers, or a set of object lessons.
4. Persian.
5. Sanskrit or Arabic.
6. English.

The examination does not appear to be recognised as a public service test.

In aided indigenous and zamindari schools the number of classes is the same as in an upper primary school, but the examination of the highest class comprises a smaller number of subjects. In indigenous schools the subjects are reading, writing, arithmetic and geography, the standard in each being approximately a year lower than that of the upper primary examinations. In zamindari schools geography is omitted; in reading and writing the standard is nearly equal to that of the lower primary examination, and the greater part of the work in arithmetic is according to native methods.

Central Provinces.—A public upper primary examination was instituted in 1891, and was made compulsory for all scholars wishing to enter a secondary school, and for all candidates for appointments under Government or Local Boards the pay of which is less than R15 a month. Before 1891 "the examination was conducted, in a loose and haphazard fashion, by inspecting officers, whenever they happened to visit a school. Little value was therefore attached to it." The compulsory subjects of the new examination include manual training, which is defined to mean either exercises in wood work with the knife, or modelling in clay, or drawing, cutting and mounting. At least two optional subjects must be chosen out of the following list:—

1. Common objects.
2. Geography of the Central Provinces and of India, and outlines of the world.
3. History of India, the English period.
4. Drawing.
5. Hygiene.
6. Agriculture.

With the exception of History, and in town schools Agriculture, all these subjects are regarded as compulsory subjects in the schools, though some of them are optional at the examination. The lower primary standard is one year below this but is not a public examination; three years are allowed for children to reach this standard, including the time spent in the infant class, which is here called Standard I.

Burma.—The lower and upper primary examinations are the examinations of Standards II and IV of the schools; in Upper Burma scholarships are awarded on the result of the latter, but not in Lower Burma. The lowest public service test mentioned in the Burma Education Code is the middle examination or Standard VII. The rules regarding promotion of scholars are very stringent, for every scholar must pass in all the compulsory subjects of one standard before he can be promoted; this applies to the intermediate standards, as well as to those which mark the different stages of instruction recognised by the Government of India. These standards have been recently introduced; formerly there

were only the three examinations—lower primary, upper primary, and middle. There are two sets of standards—one for indigenous schools, the other for Anglo-vernacular schools; but as the latter are in nearly every case departments of secondary schools, they need not be given here. In the upper primary standard the Geography of India and Burma is added to the list of compulsory subjects, and candidates are allowed to take up not more than two of the following optional subjects, of which Pali must be one:—

1. Pali.
2. Hygiene.
3. Drawing.
4. Gymnastics.

Assam.—The system differs so little from that of Bengal that no separate description is necessary.

Coorg.—The primary examination was instituted in January 1892, on the same lines as the Madras examination. Pupils in Government and aided schools must pass it before entering the secondary classes; it is also the public service test for appointments below R15 in value. Elementary science is not included in the list of optional subjects, but in other respects the course is the same as in Madras.

Berar.—The second standard above the infant class is counted as the lower primary standard, and the fourth as the upper primary, and the only examinations are those conducted by the inspecting officers at the annual examinations of the schools. The standards were revised in 1887, and book-keeping and hygiene introduced, the standard in other subjects being nearly the same as in Bombay.

119. Comparative Progress as tested by Public Examinations.—The difference between the highest and the lowest of the standards described in the preceding paragraph amounts to at least a whole year's work, though these standards are all included under the name of the upper primary standard. In the last review Sir Alfred Croft selected other standards in some provinces in order to obtain greater uniformity, but this is now impossible, as the statistics of the examinations of the other standards are incomplete. The number of candidates passing the examination, or the ratio of that number to the total number of scholars, or to the number of boys of school-going age, is an unsatisfactory test of comparative progress in different provinces for other reasons: in some provinces every pupil must appear at the examination, whatever class of school he may belong to; in others the examination is voluntary, or restricted to certain classes of schools. In the lower primary examination the differences of standard are less marked, but the other differences of system remain. Hence no attempt will be made to measure the comparative progress of primary education in different provinces by the results of these examinations, and even in the same province it will not be possible in all cases to do so, since the changes in the rules have completely altered the nature of the examinations.

At first sight it would appear that a more accurate estimate of the progress made in different provinces might be obtained from the number of scholars in each of the three primary stages shown in General Table V, but this is not the case. The variations in the range of the primary course would still remain, and in order to eliminate the differences caused by the dual system being in force in some provinces and not in others, it would be necessary to include the primary departments of all secondary schools. The figures for primary schools alone

are, however, of use in estimating the progress made in each province by itself, and therefore they are included in the table given below:—

Stages of Instruction in Primary Schools and Results of Primary Examinations.

Province.	Number of boys in the				Total.	Number of boys who passed the	
	Middle stage.	Upper primary stage.	Lower primary stage. Reading printed books.	Lower primary stage. Not reading printed books.		Upper primary examination.	Lower primary examination.
			1886-87.				
Madras	...	19,294	250,095	65,342	334,731	6,863	20,754
Bombay	...	124,781	265,343		390,124	13,403	30,409
Bengal	205	26,005	613,811	405,967	1,045,988	2,959	26,275
North-Western Provinces	...	34,487	127,585	9,740	171,812	4,017	11,419
Punjab	...	13,060	63,051	3,418	79,529	5,757	11,374
Central Provinces	2,217	13,694	42,533	38,179	96,623	6,499	9,480
Upper Burma	...	...	...	...	..	...	...
Lower Burma	...	2,473	40,359	49,524	92,356	773	2,488
Assam	...	1,161	38,778	8,871	48,810	229	1,327
Coorg	...	681	1,922	21	2,624	...	...
Berar	969	9,690	7,999	18,482	37,140	1,134	3,041
Total	3,391	245,326	2,051,020		2,299,737	41,634	110,567
			1891-92.				
Madras	...	25,770	376,601	72,285	474,656	17,039	26,802
Bombay	...	137,913	186,426	130,790	455,129	13,366	31,219
Bengal	511	25,245	709,432	357,985	1,093,173	2,491	18,630
North-Western Provinces	...	23,428	119,916	4,370	147,714	7,319	15,325
Punjab	...	13,010	74,058	1,910	88,978	8,147	11,954
Central Provinces	...	12,985	32,494	36,655	82,134	7,231	9,337
Upper Burma	...	328	47,568	...	47,896	(a) 322	(b) 1,653
Lower Burma	215	2,697	64,307	...	67,219	(a) 3,227	(b) 10,389
Assam	7	1,172	50,211	10,515	61,905	193	1,184
Coorg	...	371	2,509	457	3,337	...	...
Berar	1,395	11,950	9,591	21,652	44,588	1,584	4,040
Total	2,128	254,869	1,673,113	636,619	2,566,729	60,919	130,533

(a) Two examinations, Standards III and IV.
(b) " " " I and II.

Taking the aggregate for India the table shows a small increase in the number of scholars in the upper primary stage, but a decrease in the percentage; in the upper section of the lower primary stage there is a large increase, while the number of scholars not reading printed books has decreased. The number of passes by the upper primary standard has increased by nearly 50 per cent., but an examination of the details for each province shows that two-thirds of this increase is due to changes in the nature of the examination or of the form of the returns, and that the increase in the number of scholars who have completed the upper primary course and passed the examination does not exceed 14 or 15 per cent. About half of the increase in the number of lower primary passes is due to similar causes, and the real increase does not exceed 10 per cent. In Madras the number of scholars in the upper primary stage has increased by a third, and in the upper section of the lower primary stage by a half, while the increase in the section not reading printed books is very little over 10 per cent. The large increase in the number of upper primary passes is due to the change in the character of the examination; in 1886-87 it was merely a standard examination, but in 1891-92, while retaining this character, it was also a public service test and an examination for the lower grades of teachers' certificates; the number of scholars examined under the same conditions as in 1886-87 was 8,812,

so that the increase was rather less than a third, and the number of lower primary passes increased in the same proportion. The increase in the upper primary section is attributed by the Director to the institution of the primary examination and its recognition as the public service test. More than half of the total number of scholars in the upper primary stage are found in Bombay, and even if the two extra classes, which are really secondary, but classed as primary, were omitted, the number would be very little short of half. The exact number of scholars in these classes is not stated, but from the number presented for examination it would appear to be between 20,000 and 25,000. Owing to a change in the method of recording the results of the annual examinations it is impossible to trace the progress of these classes, but the number of scholars in them has increased. There is a slight decrease in the number of upper primary passes, but an increase in the lower examination. In Bengal the number of passes at both examinations has decreased, and there has been also a slight falling off in the number of scholars in the upper primary stage, which has been accompanied by a large increase in the section below it at the expense of the section in which printed books are not used. The comparatively small number of scholars in the upper primary stage is partly accounted for by the fact that the lower primary standard is very high, at least one year above that of Bombay, but of course the principal cause of the difference between the two provinces is that the Bombay schools contain the scholars who intend to join secondary schools, while very few of the scholars in primary schools in Bengal ever go beyond the primary stage; and the majority of them do not remain at school long enough to complete the primary course. In the North-Western Provinces there is a large decrease in the total number of scholars, and the upper primary stage has lost much more than either of the sections below it; this is perhaps due to the increase of fees in this section being greater. The increase in the number of passes by each standard is only apparent; the numbers for 1886-87, as well as those given in the last Review, refer only to the halkabandi or village schools managed by Local Boards, while the figures in the last annual report refer to all classes of schools. For the village schools alone the numbers were 3,890 for the upper and 10,458 for the lower primary, the numbers in both being less than in 1886-87. In the Punjab the result of the upper primary examination shows a steady increase in the number of scholars who complete the primary course, though the number of scholars in the upper primary stage is practically stationary. The total number of scholars has increased, but the increase is confined to the upper section of the lower primary stage. The number of lower primary passes has increased by about 5 per cent. In the Central Provinces there is a decrease in all the sections owing to the separation of middle vernacular from primary schools, but there is a considerable increase in the number of upper primary passes, and this number is likely to increase, because the examination has been made the public service test. In Burma the lowest section has entirely disappeared, and the upper primary section has increased in spite of a large decrease in the total number, the causes of which have been explained in a previous paragraph; the number of passes by the two standards means the number of scholars who have earned grants, and this number has increased very largely, though the exact rate of increase cannot be determined, since the figures for 1891-92 show the results of the examinations of the upper primary standard and the one a year below it. In Assam the number of passes by both standards has decreased, but as in Bengal the examinations are optional, so that a decrease in the number of passes may or may not indicate a deterioration of the schools. There is a very slight increase of the upper primary, and a very large increase of the higher section of the lower primary stage. Berar shows a great improvement in all the stages,

and also in the results of the examinations. In Coorg no examinations were held in either year; the number of scholars in the upper primary stage has decreased by nearly 50 per cent.

120. Expenditure on Primary Schools for Boys.—The following table gives the necessary data for a comparison of the expenditure from all sources on primary boys' schools in 1886-87 and 1891-92:—

Expenditure in Primary Schools for Boys.

Province.	1886-87.							1891-92.						
	From Provincial Revenues.		From Local Funds.	From Municipal Funds.	From Fees.	From other Sources.	Total.	From Provincial Revenues.		From Local Funds.	From Municipal Funds.	From Fees.	From other Sources.	Total.
	In Schools under public management.	In aided Schools.						In Schools under public management.	In aided Schools.					
	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Madras	26,437	44,973	3,44,035	74,166	4,52,704	1,98,766	11,41,081	73,284	57,726	5,21,996	1,08,763	5,91,851	2,48,027	16,01,647
Bombay	4,76,714	35,458	5,53,531	1,30,477	2,82,173	4,40,124	19,18,477	5,65,356	40,592	6,95,187	2,08,298	3,45,539	6,27,615	24,82,587
Bengal	3,511	5,43,883	8,353	11,423	14,58,232	3,20,820	23,46,222	1,050	1,42,572	4,47,374	16,489	15,76,675	3,87,935	25,72,095
North-Western Provinces and Oudh	318	8,487	5,07,307	22,242	14,393	34,895	5,87,642	300	6,412	5,13,353	26,399	39,103	38,498	6,24,065
Punjab	2,509	13,428	2,29,042	33,129	34,382	15,843	3,28,333	4,431	6,217	2,80,175	36,022	47,006	15,860	3,89,711
Central Provinces	45,023	33,474	1,48,144	29,861	29,113	39,924	3,25,539	54,446	18,342	94,341	23,486	43,472	43,583	2,77,670
Upper Burma	...	...	...	...	...	...	...	...	29,225	...	...	1,800	2,570	33,595
Lower Burma	6,197	4,033	92,728	84,844	11,254	7,121	2,06,177	2,941	1,012	1,00,470	59,677	9,714	6,965	1,80,779
Assam	1,090	7,377	90,254	1,572	22,163	20,903	1,43,359	2,399	8,086	1,12,999	2,042	26,629	29,300	1,81,455
Coorg	3,942	240	4,080	1,258	1,828	264	11,612	1,638	360	6,564	2,060	2,635	683	13,940
Hyderabad Assigned Districts	77,282	9,680	73,897	5,624	33,746	1,970	2,02,199	81,524	16,374	77,094	7,142	60,651	4,214	2,46,999
Total	6,43,023	7,01,033	20,51,371	3,94,596	23,39,988	10,80,630	72,10,641	7,87,369	3,26,918	(a) 28,49,553	4,90,378	27,45,075	14,05,250	86,04,543

(a) Includes Native States Local Funds in the Central Provinces.

The cost of the primary schools has, therefore, increased by R13,93,902, which is equivalent to 19·3 per cent., though the increase in the number of scholars is only 12·6 per cent.; but as the total expenditure is very little over R3 per annum for each scholar, it is obvious that the expenditure ought to increase in a much greater ratio than the number of scholars, if the schools are to be brought to a proper state of efficiency.

Only two provinces, the Central Provinces and Burma, show a decrease; in the former this is due to the separation of middle vernacular from primary schools, and in the latter to the transfer of a large number of schools to the list of private institutions. In Burma the expenditure in unaided schools is not shown in the returns. The expenditure from provincial revenues has decreased by R2,29,769; the principal items under this head are a decrease of R4,03,772 in Bengal, due to the transfer of the primary grant fund to District Boards, an increase of R93,775 in Bombay, and of R59,600 in Madras.

In Bombay the provincial grant to Local Boards was increased by one lakh in 1890-91, nearly all of which was expended by the Boards on their own schools. In Madras the increase of expenditure on schools under public management and on aided schools is roughly proportional to the increase of pupils in them.

The expenditure from local funds for the whole of India has increased by R7,98,182. There is a decrease in the Central Provinces, partly due to the cause already stated, but an increase in all the other provinces, the greatest amount being R4,39,021 in Bengal, corresponding to the reduction in Government expenditure; Madras comes next with R1,77,961, then Bombay with R1,41,656, and then the Punjab with about half a lakh. Under the head of municipal funds there is an increase of R95,782, to which Bombay contributes R77,821, and Madras R34,597. There is a decrease of about a quarter of a lakh in Lower Burma, and a small decrease in the Central Provinces with a small increase in the remaining provinces. Burma alone shows a decrease in the total amount of the fees, which have increased by R4,05,087 in the whole of India. The most rapid rate of increase is shown by the North-Western Provinces, where it amounts to over 170 per cent., in spite of a reduction in the number of scholars. The expenditure from other sources, in these schools mostly subscriptions, has increased by R3,24,620, Bombay accounting for more than half the increase.

Taking all public funds together the increase is R6,64,195 or 17·5 per cent., but the proportion of the total cost borne by public funds has fallen from 52·6 to 51·8 per cent. The increase in public expenditure is greatest in Bombay, where it amounts to R3,13,253; Madras comes next with R2,72,158. Bengal with more pupils in primary schools than Madras and Bombay together spends upon them a smallar amount of public money than either of those provinces, and the increase of expenditure is only R40,315. Again Bengal contains 42 per cent. of all the pupils of primary schools in India, but the payments from public sources are not quite 14 per cent. of the total for India. This is explained by the fact that there are very few schools under public management in Bengal, and by the very small grants given to aided schools.

121. **Comparative Cost of Primary Schools.**—The returns of ex-

penditure in unaided schools are not sufficiently accurate for any reliance to be placed upon them, and in Burma they are not given at all; these schools are, therefore, excluded from all the tables of this paragraph. The following table shows for all other classes of schools the average annual cost of a primary school in each province, as obtained from the returns of 1886-87 and of 1891-92:—

Cost of Primary Schools for Boys.

Province.	1886-87.			1891-92.		
	Cost of a Primary School.		Total annual cost.	Cost of a Primary School		Total annual cost.
	To public funds.	To private funds.		To public funds	To private funds.	
	R	R	R	R	R	R
Madras	58	55	113	62	51	113
Bombay	170	101	271	182	115	297
Bengal	13	38	51	16	42	58
North-Western Provinces and Oudh.	109	8	117	132	17	149
Punjab	177	30	207	190	35	225
Central Provinces	162	40	202	135	57	192
Burma { Upper	...	...	...	57	8	65
Burma { Lower	172	17	189	159	16	175
Assam	60	25	85	60	26	86
Coórg	140	31	171	149	47	196
Hyderabad Assigned Districts.	208	40	248	162	54	216

The great variations in the cost of a primary school in different provinces, from R58 in Bengal to R297 in Bombay, are very closely connected with the variations in the primary systems already described. One of the most important causes of this variation is the difference in the average strength of schools in different provinces, but this can be eliminated by taking the average cost for each pupil instead of the cost of each school; this average will be given in a separate table. Another very important cause is the method of control of the schools; the average annual cost of a school managed by the Department is R611, the cost to public funds being R497; these are the most expensive schools, and their cost is enhanced by the fact that a large number of them are model schools, in which the staff is much stronger than it would be if they were not attached to training schools. Schools managed by Municipalities are nearly as expensive as Government schools; the average cost being R584 from all sources and R467 from public funds, but the average strength of such schools is about double that of Government schools. Local Fund schools come next, with a total cost of R191, R170 from public funds. Aided schools are much less expensive, the average being R73, one-third being paid from public funds. Almost all schools in Bengal that receive any money from the State are aided schools, which also form a large majority in Madras, and this accounts for the comparatively low cost of the schools in those provinces. In Burma there are hardly any schools under public management, but the grant-in-aid rules are extremely liberal, so that the cost of each school is very high. Assam comes very near to Bengal in the average cost of a school, though the Board schools form a majority; but it has been explained that acon siderable number of these schools differ very

little from aided schools in character. One other cause of variation must be mentioned; in Bengal and Assam the course of instruction in primary schools is exclusively that required by the mass of the people, instruction being provided in other schools for those who wish to advance beyond the primary stage. In Bombay, on the other hand, the curriculum in primary schools is intended to lead up eventually to the University, and the cost of providing teachers is greater. In Madras the primary schools belong to both of these classes, and in many of them English is taught; it is probable that in the purely indigenous schools that receive aid the total cost is not very much above that of schools in Bengal.

The question of the efficiency of the schools is very closely connected with that of their cost. In Bombay and the Punjab the average cost is highest, and in both of these provinces a large proportion of the teachers, or at least of those in primary schools under public management, have gone through a course of training in a normal school. In Bengal, on the other hand, very few of the teachers are trained, and even if a sufficient number of normal schools could be provided, it would be impossible to require the teachers to undergo a course of training when the average income of a teacher is less than R5 a month, and in a lower primary school less than R4. It is difficult to have any faith in the efficiency of a teacher whose pay is much below that of a menial servant.

The average cost of each pupil in primary schools is shown in the following table, as well as the average number of pupils in a school :—

Primary schools for Boys (excluding unaided schools).

[Cost of each pupil's education = Cost ÷ average monthly number of pupils.]

Province.	1886-87.				1891-92.			
	Average number of Pupils to a School	Cost of each Pupil's Education.			Average number of Pupils to School.	Cost of each Pupil's Education.		
		To Public Funds.	To Private Funds.	Total.		To Public Funds.	To Private Funds.	Total.
		R	R	R		R	R	R
Madras	29	1·9	1·9	3·8	32	9	1·6	3·5
Bombay	55	3·0	1·8	4·8	55	3·3	2·0	5·3
Bengal	21	·6	1·8	2·4	22	·7	1·9	2·6
North-Western Provinces and Oudh	34	3·2	·2	3·4	34	3·8	·5	4·3
Punjab	49	3·5	·6	4·1	47	4·1	·7	4·8
Central Provinces	58	2·7	·7	3·4	56	2·4	1·0	3·4
Upper Burma	...	...	...	..	24	2·4	·3	2·7
Lower Burma	30	5·8	·5	6·3	39	4·0	·4	4·4
Assam	27	2·2	·9	3·1	27	2·2	·9	3·1
Coorg	41	3·4	·7	4·1	53	2·8	·9	3·7
Hyderabad Assigned Districts	43	4·8	·9	5·7	38	4·3	1·4	5·7

The variations here are much less marked than in the preceding table. Bengal is still the cheapest, but Berar has taken the place of Bombay at the other end of the scale, both the total cost and the cost to public funds being greater there than in any other province. In Bombay the expenditure from private sources reaches two rupees a year for each scholar, while in Burma the average is only five or six annas; Bengal comes very close to Bombay with R1·9. In Government schools throughout India the cost of educating each pupil is R13·4, R10·9 being paid from public sources; in Municipal schools the average is R6·2, of which the State pays R5; in Local Fund schools the total and public payments are R4·5 and R4, and in aided schools R3 and R1. It is

not easy to account for the large expenditure from public funds in Municipal schools; these schools contain on an average 97 scholars, and as they are situated in towns where the advantages of education are better understood, it would be natural to expect a higher rate of fees, and larger contributions from other sources, but these two sources together give only R1·2 for each scholar against R2 in aided schools. More than two-thirds of the children attending municipal schools are found in the Bombay Presidency, and for these the average cost to public funds is R5·1 per scholar; the expenditure from private funds is exactly equal to the average for all schools of this kind throughout India.

A comparison of the total cost of each school and each pupil in the same province in different years shows some curious fluctuations. The last Review shows that the average cost of a school in Madras was R126, but one year later it had fallen to R113, at which figure it remained in 1891-92, though the increase in the average number of pupils to a school caused a reduction of the cost of each pupil, which is now one rupee less than it was in 1885-86. During the last five years this decrease has been only in the expenditure from private sources, the cost to public funds being unchanged. In Bombay there has been a continuous increase in the expenditure both from public and from private sources, and the same is true of the North-Western Provinces. In Burma the cost of a school was R155 in 1885-86 and the cost of a scholar R3-3, but a year later the figures had risen to R189 and R6·3 owing to a large decrease in the number of scholars, but the cost afterwards decreased. In Berar the total cost of educating a scholar remains the same, but a larger share is borne by private funds. In other provinces the changes are not very striking.

122. Comparative Cost of Primary Schools and Primary Departments.—Under this head Sir Alfred Croft compared the cost of educating pupils under the two different systems already explained—the "dual system" of Bengal in which scholars intending to go through the whole course of instruction up to the matriculation standard receive their primary instruction in the lower classes of high schools, and the system under which all scholars go through the same course of instruction in primary schools, and after completing that course have the option of entering a secondary school. He showed that the first system was more economical than the second, as judged by the cost of high schools in Bengal compared with the cost of secondary schools in Bombay, both high and middle schools being included in the latter case. The figures for 1891-92 lead to the same result, for while the cost of each scholar in a secondary school in Bombay has increased by one-half, both from public and from private funds, the cost of a scholar in a high school in Bengal to public funds has decreased from R7·2 to R6-1, or rather less than half of the cost in Bombay, and the total cost is only R24·2 a little more than half of the cost in Bombay. It is unnecessary to give further details, as the question was discussed in the last review merely with the object of showing that the opinion expressed by the Education Commission that the dual system might involve a waste of money and of power was not in accordance with facts.

123. Recommendations of the Commission as to Primary Education.—In paragraphs 186 to 197 of the last Review Sir Alfred Croft dealt with these recommendations in detail, and showed that, with very few exceptions, action had been taken in accordance with them in all the provinces. The following paragraphs will show what action has since been taken with regard to these exceptional cases, and the progress made during the last five years towards carry-

ing out the policy adopted before 1887 with regard to these recommendations. The subjects will be treated in the same order as in the last Review.

124. **Superior claims of Primary Education upon public effort and public funds.**—The Commission recommended that primary education should be recognised as having an almost exclusive claim upon local funds set apart for education, and a large claim upon provincial revenues. In paragraph 187 of the last Review Sir Alfred Croft stated in detail the varying views of the Local Governments with regard to the distinction drawn between provincial revenues and local funds, and the final orders of Government accepting the views of the Commission, and recognising the distinction between provincial revenues and local rates or cesses. If this distinction is retained, it is very difficult to show by statistics the extent to which public effort has been directed during the past five years to the development of primary education, for the progress, which it is the object of the present paragraph to show, is disguised by large transfers of funds from one head to another. Thus the total direct expenditure from provincial revenues on primary schools throughout India shows a decrease from about sixteen lakhs of rupees to thirteen and a half lakhs, which is more than accounted for by a decrease of four and a quarter lakhs in Bengal, and this is entirely due to the transfer to District Boards of funds for the support of primary schools. For the purpose of estimating the progress made in carrying out the policy recommended by the Commission and adopted by the Supreme Government, the total expenditure from all public sources, provincial revenues, district and municipal funds will be taken together, and a separate statement will be given of the ratio of the expenditure on primary education to total direct expenditure from each of these sources for 1891-92.

The following table shows the total direct expenditure in each province in 1886-87 and in 1891-92 on Arts colleges, secondary schools, primary schools and training institutions ; colleges and schools for special instruction are omitted, as the considerations governing the rate of aid to them are entirely different :—

Expenditure from Public Funds in 1886-87 and in 1891-92.

Province.	1886-87.				1891-92.			
	Arts Colleges.	Secondary Schools.	Primary Schools.	Training Schools.	Arts Colleges.	Secondary Schools.	Primary Schools.	Training Schools and classes.
	R	R	R	R	R	R	R	R
Madras . . .	2,10,835	4,05,341	5,55,899	1,14,738	2,41,109	4,65,291	8,46 990	1,77,634
Bombay . . .	1,25,389	3,90,958	13,05,010	81,819	1,50,877	3,92,002	16,54,156	1,24,912
Bengal . . .	3,09,971	7,01,409	6,60,535	77,011	2,92,764	7,51,190	7,09,055	8 5,066
North-Western Provinces.	1,28,695	5,16,925	5,79,279	45,525	1,19,391	5,26,784	5,92,680	48,124
Punjab . . .	44,787	3,96,935	3,34,433	52,067	66,504	4,23,491	3,73,946	57,580
Central Provinces .	21,068	81,512	2,80,882	26,839	19,465	1,50,561	2,17,113	33,849
Upper Burma . .	...	...	...	...	...	3,655	30,481	...
Lower Burma . .	33,193	1,92,744	2,02,395	22,865	40,291	1,69,452	1,68,715	23,610
Assam . . .	...	58,413	1,06,950	22,063	...	62,383	1,32,406	17,056
Coorg . . .	...	10,023	10,072	1,380	...	7,288	10,782	1,272
Berar . . .	...	65,993	1,72,408	9,640	...	60,465	1,93,227	10,853
Total .	8,73,936	28,20,253	42,07,863	4,53,947	9,30,401	30,12,562	49,29,551	5,79,956

The increase under the head of Arts colleges for the whole of India, including Oriental colleges, was R56,465, or 6·5 per cent. For secondary schools the increase is R1,92,309, or 6·8 per cent. For primary schools the increase amounts to R7,21,688, or 17·1 per cent. In training schools and colleges the increase is R1,26,009, or 27·7 per cent. The expenditure under the last head ought to be divided among the other heads, but it is impossible to decide the

exact proportion that should be included under each head. Sir Alfred Croft assumed, as a rough approximation, that the training schools maintained by the Department were intended chiefly for training teachers for secondary schools, and those supported by local and municipal funds chiefly for teachers in primary schools. This would not now give a fair estimate of the relative expenditure on training teachers for the different classes of schools, for the provincial expenditure on training schools amounts to about 70 per cent. of the total cost to public funds, while the number of students being trained for work in secondary schools is probably less than one-fourth of the total number of students. Leaving the training schools out of the calculation the additional expenditure on schools and colleges for general instruction amounts to ₹9,70,462, of which 5·8 per cent. was spent on Arts colleges, 19·8 per cent. on secondary schools, and 74·4 per cent. on primary schools. Hence it appears that the efforts of the State have been directed in a larger measure than before to the provision, extension and improvement of the elementary education of the masses (Report of the Commission, IV, 3). In Madras the expenditure on primary education has increased by 52 per cent., and the expenditure on training schools by 55 per cent., while in the higher grades of education the increase is from 14 to 15 per cent. and the total expenditure on primary education in 1891-92 was eight and a half lakhs against seven lakhs on the higher grades. In Bombay primary schools received a much larger share of public support in 1886-87 than in any other province, and this proportion has since increased; in 1891-92 three-fourths of the total expenditure from public funds was devoted to primary education. In Bengal the proportion is much smaller, amounting to only 40 per cent. of the total direct expenditure; the increase in the expenditure is about half a lakh each for primary and secondary schools, while in Arts colleges there is a decrease of about ₹17,000.

It must, however, be remembered that in these three provinces the amount of encouragement and support to primary education is not accurately measured by the proportion which the expenditure upon primary schools bears to the total expenditure: the most expensive kind of primary education is that which is intended as a preparation for a higher form of education, and this expenditure is differently treated in the three provinces. In Bombay nearly the whole of it is treated as expenditure on primary schools, for there are not quite seven thousand scholars in the primary departments of secondary schools, since such departments do not exist, except in European and English-teaching schools. In Bengal the whole of this expenditure is added to that upon secondary education, for the primary schools are not intended to serve as feeders to secondary schools; in schools of the latter class there are 130,000 scholars in the primary stage. Madras occupies an intermediate position, for some of the secondary schools have, and others have not, primary departments; the total number of scholars in the primary departments is about 39,000. Again in Bombay the two highest classes of primary schools are above the upper primary standard, and under the system of classification adopted in Madras and Bengal would be counted as middle vernacular; the schools in which they are found would therefore be treated as secondary schools, and the whole of the expenditure on the schools, including the true primary classes, would be counted as expenditure upon secondary schools. These variations of system destroy the value of the figures given when regarded as a test of the relative importance attached to the different grades of instruction in different provinces, though they retain their value as a test of the progress made in each province in carrying out the policy recommended by the Commission.

In the North-Western Provinces there is a small increase under the head of primary schools, while the expenditure on secondary schools and colleges together has remained stationary; primary schools receive nearly half of the total amount paid from public funds. The increased expenditure has been devoted to the improvement of existing schools rather than to the provision of fresh means for educating the masses, for both schools and scholars have largely decreased in number.

In the Punjab the expenditure on primary schools has increased by nearly R40,000, or 12 per cent., the increase in the expenditure on secondary schools being much smaller. Primary schools receive about 40 per cent. of the total aid given, but as in Bengal the secondary schools contain primary departments, the cost of which is shown under the head of secondary education. In the Central Provinces the figures given are misleading; middle vernacular schools were shown as primary in 1886-87, and as secondary in 1891-92; the expenditure on these schools from public funds in the latter year was R65,474, and if this amount be transferred to the place it held in 1886-87, there would be a very small increase under both heads. In these provinces primary education is admittedly in a backward condition, and its spread has been checked by an over-ambitious curriculum of studies, which does not suit the simple wants of an agricultural people. An increase of the grant for primary schools has recently been sanctioned, and proposals have been made for giving aid to schools that are likely to be more popular; these proposals will be referred to in a later paragraph. In Lower Burma the expenditure on both primary and secondary schools has largely decreased; in the case of primary schools this is chiefly due to the substitution of aided schools for more expensive ones under public management; a part of the decrease is merely nominal, being due to the inclusion in 1886-87 of a part of the expenditure on training schools under the head of primary schools. Revision of the rules of aid has also had a large effect; at first the rules were very liberal in order to induce the teachers of indigenous schools to accept aid, but as soon as the advantages of an improved system of education were understood by the people, and there was no fear of the schools relapsing into the old grooves, the Department began to try to secure quality rather than quantity; hence the number of schools and scholars recognised by the Department was considerably reduced, and the amount given in the shape of rewards for passes. In Assam the returns show an increase of 25 per cent. in the expenditure on primary schools, and of only 6 per cent. on secondary schools. The real increase in primary schools is rather less than this, for the expenditure in 1891-92 includes some arrears from the previous year. At the end of 1890-91 some of the inspecting officers were employed in census work, and were not able to hold the reward examinations of some of the schools till after the close of the year. Primary schools receive about two-thirds of the entire contributions from public sources, and primary education a still larger proportion, for about 70 per cent. of the scholars of secondary schools are in the primary stage. In Berar, owing to a large increase in the fee receipts the public expenditure on secondary schools has decreased, while that on primary schools has increased by 12 per cent. In Coorg also the expenditure on secondary schools has decreased, but in a much larger ratio, while there is a small increase in the expenditure on primary schools.

125. Provincial, local, and municipal expenditure in 1891-92.—The total expenditure, direct and indirect, on education from public funds in 1891-92 was distributed as follows, round numbers being taken:—Provincial revenues 88¼

lakhs; local funds 54 lakhs; municipal funds 14 lakhs. The direct expenditure from provincial revenues amounts to only 62·9 of the total expenditure from this source, the chief items under the head of indirect expenditure being buildings, direction and inspection, and scholarships. (It may be remarked here that the decrease of the percentage from 65·5, the figure given by Sir Alfred Croft, to 62·9 is more than accounted for by an increase of nearly 5¼ lakhs in the expenditure on buildings. The direct expenditure from local funds amounts to 74·3 per cent., and from municipal funds to 85 per cent., the expenditure on inspection being much smaller in Municipalities than in the areas controlled by Local Boards. The following table shows for each province the ratio of direct to total expenditure from each class of public funds, and also the ratio which the expenditure on primary schools bears to the total direct expenditure. Direct expenditure here includes the cost of colleges and schools for special instruction, which were excluded from the figures given in the preceding paragraph. Although this table is similar in form to the one given on page 222 of the last Review, it is not identical in principle, for the expenditure on training schools is not reckoned as part of the cost of primary education; the reason of this change was explained in the preceding paragraph, as well as the fact that no conclusions could be drawn from a comparison of the two tables, if they had been drawn up on exactly the same lines:—

1891-92.

Province.	Nature of Expenditure.	Source of Expenditure.		
		Provincial.	Local.	Municipal.
Madras	Direct	67·3	79·0	80·9
	Primary	17 2.	81·5	64·3
Bombay	Direct	74·2	91·7	94·4
	Primary	44·8	91·6	78·2
Bengal	Direct	59 5	67·5	88·9
	Primary	14·1	66·7	34·0
North-Western Provinces and Oudh.	Direct	74·0	67 3	89·3
	Primary	4·1	55·9	35·1
Punjab	Direct	42 7	65·6	78·5
	Primary	5·8	74 6	21·2
Central Provinces	Direct	56·6	83·2	92·0
	Primary	39·8	68 9	44·1
Upper Burma	Direct	50 2	...	70·5
	Primary	77·5	...	...
Lower Burma	Direct	48·3	75·0	77·2
	Primary	3·3	98·5	37 6
Assam	Direct	37 0	91·5	96·1
	Primary	18·3	79·9	66·1
Coorg	Direct	55·2	100·0	100 0
	Primary	19·9	100·0	
Hyderabad Assigned Districts	Direct	73·2	66·2	88·9
	Primary	58·4	99 9	97·8
Average for India	Direct	62·	74·	85·0
	Primary	24·1	74 3	50·1

In Madras the Grant-in-aid Code defines the sources from which aid is to be given to each class of schools, and also to each department of a school. The education of girls and of Europeans is under the charge of the Department. Municipalities are responsible for the primary and middle departments of schools within their limits, while Local Boards are required to pay the earnings of the lower primary classes only. Grants to the higher classes are paid from provincial revenues Schools directly managed by the Boards are eligible for grants from Government in the same way as other schools, and the amount Local Boards have to pay for secondary education represents the difference between the amount of the grant received and the net cost. The reports show for each year the total expenditure from each source on primary education, including the primary departments of secondary schools, which are examined by the same standards as primary schools. In 1886-87 primary and secondary departments together received from provincial revenues R4,26,690, of which primary departments received 57 per cent.; in 1891-92 the total had risen to R5,62,256, and the share of primary education to 63 per cent. From local funds the total expenditure rose from R3,98,881 to R5,83,237, while the percentage of the total devoted to primary education rose from 94 to 95. The total expenditure from municipal funds rose from R1,35,669 to R1,66,788, and the percentage received by primary departments from 69 to 75. During the earlier part of the period under review a considerable portion of the sum allotted for grants-in-aid was annually left unspent; the managers of schools were called upon to submit an estimate of the number of scholars to be presented for examination by each standard, and from these estimates, corrected by the Inspectors, the probable demand for results grants was calculated, and in order to bring the total expenditure within the amount sanctioned a maximum limit to the grant for each school was fixed. It was found, however, that the estimates of the managers were generally very much in excess of the actual number of children presented, often more than double; hence the maximum grants fixed were much too low in the case of good schools submitting reasonable estimates, and the whole of the allotment could not be spent. This difficulty has since been obviated by framing one general estimate for the aggregate cost, without fixing a maximum for each school. In Bombay Local and Municipal Boards receive grants from provincial revenues on the five years' contract system, the amount being fixed at one half of the local assets, and "Government are willing further to assist in "the expansion of educational means during that term by contributing to the "cost of new schools at its discretion under the grant-in-aid rules." Owing to financial difficulties the full amount of half of the local assets could not be given at the end of the first contract, but an addition of one lakh was made to the grants to Local Boards, which now stands at a little over four lakhs. The amount actually paid to the Boards has, however, always exceeded the contract, and in 1891-92 it amounted to 5½ lakhs, while Municipal Boards received 1½ lakh. The amount directly expended upon primary schools by the Department is very small, since with very few exceptions primary schools under private management derive their grants from the Boards. Practically the whole of the grant to Local Boards is spent on primary education, besides 91 per cent. of the amount derived from the local cess, and the amount spent on secondary schools is less than one per cent., the remainder going to buildings, training and industrial schools, all more or less closely connected with primary education. Municipalities spend a larger proportion of the funds at their disposal on second-

ary schools, about 12 per cent. In Bengal "the educational duties transferred "to District Boards included the management of Government primary and "middle schools, English and vernacular; the control of the grant-in-aid "allotment for middle schools under private management; the control of the "grant for primary education, together with the conduct of the annual examin-"ation for rewards and the award of primary scholarships." The grants given to the Boards in addition to the revenues derived from pounds and ferries are not shown as provincial expenditure on education, but as Local Board expenditure. The transfer of middle schools to the management of the Boards accounts for the comparatively small percentage of expenditure on primary education. Municipal expenditure on education is much smaller in Bengal than in Madras or Bombay, the total being only R82,000; out of this the expenditure on secondary schools amounts to R47,000. In the North-Western Provinces all the zila schools are supported by local funds, though under the management of the Department, hence the local expenditure on secondary schools is very high; there is a small decrease in the amount spent upon secondary schools from local funds, and a small increase from municipal funds, and a small increase from both sources in primary schools. The Government expenditure is chiefly upon European schools, and upon colleges and the schools attached to them. In the Punjab the Government expenditure on primary schools is very small, and has decreased from R51,000 to R22,000, owing to the localisation of some schools, and still more to changes in the method of calculating the expenditure on European schools. The expenditure of District Boards on primary schools has increased from R2,37,000 to R2,95,000, or about 25 per cent., while on secondary schools the increase is about 12 per cent. In Municipalities the expenditure on primary schools has increased by nearly a quarter, while that on secondary schools has decreased slightly, but the latter is still nearly 80 per cent. of the total. In the Central Provinces schools within municipal limits are being gradually made over by Government to the Municipal Councils, and most of the middle vernacular schools are now supported by local funds, hence under both heads the percentage of expenditure on primary education is rather low. In Lower Burma the share of the local cess given to education has remained practically stationary for the five years, and almost the whole of it is given to primary education; there are no Local Boards to administer these funds. The municipal expenditure has fallen off from R2,90,767 to R2,13,903, or about 26 per cent., the decrease being about equally divided between primary and secondary schools: the causes of this decrease have been explained in Chapter III, but it appears also that several municipal schools were closed to avoid competition with schools under private management. In Assam the rules are different from those of any other province; there are no schools above the primary grade managed by Local or Municipal Boards, but all secondary schools under private management receive aid from these Boards, no grants being given to them from provincial revenues. Primary schools in the various hill tracts are aided by Government and all others by the Boards. The Government expenditure therefore represents the cost of the institutions maintained by the Department and the aid given to the schools for aborigines, while local and municipal funds pay for the rest of the education of the province. From local funds the expenditure on primary education has increased by nearly a quarter, while that on secondary education has remained stationary; the municipal expenditure on primary education has also increased, while that

on secondary schools has diminished, but the totals in both cases are very small. In Berar the contributions from local and municipal funds to secondary education are nominal amounts, the whole of the available funds being spent on primary education; from each source there has been a material increase. In Coorg the Government expenditure on primary schools has decreased, and the local expenditure has increased by the same amount, and a larger amount of aid has been given by Municipalities.

126. **Agencies and Means for extending Primary Education.**—The Commission recommended that schools should be established by Government in backward districts, especially in those inhabited mainly by aboriginal races, but that in other places efforts should be made to aid and improve existing indigenous schools in preference to establishing new schools. It has been shewn in the paragraphs relating to aided and unaided schools that this policy has been steadily pursued in nearly every province of India. In Madras the transfer of a large number of aided schools to the management of Local Boards is apparently an exception to the rule, but these schools are still in receipt of aid on the results system, in addition to fixed salary grants paid by the Boards. The cause of the transfer has already been explained. The whole primary system of Madras is based upon the indigenous schools, and if funds were available all, or nearly all, of them would eventually be brought under departmental influence, except perhaps those of a purely religious character. Even these schools in some cases can be induced to extend their sphere of usefulness by adding secular subjects; this has been very largely done in the Muhammadan schools of Sind, an account of which was given in paragraph 115. The total number of schools in the Bombay Presidency aided under the rules for indigenous schools quoted in the last Review is not stated, but in two divisions there has been a considerable increase. In Bengal the extension of primary education has been checked by the want of funds for its development. The total increase in the expenditure from public funds on primary schools for boys during the five years amounted to only R40,315, as compared with an increase of R2,72,158 in Madras, and of R3,13,253 in Bombay. A great part of this increase consists of an unspent balance of about R30,000 brought forward from 1890-91 to 1891-92 by some of the District Boards. The totals for the three provinces in 1891-92 are roughly as follows:—Madras 7½ lakhs; Bombay 15 lakhs; Bengal 6 lakhs. The insufficiency of these payments from public sources was brought to the notice of the Local Government in 1888, and the following is an extract from the reply:—

"In regard to this, I am to say that the Lieutenant-Governor is painfully conscious of the inade-"quacy of the present grant. He entirely concurs with the observations of the Education Commission "that it is desirable that the strenuous efforts of the State should be devoted in a still larger measure "than heretofore to the provision, extension, and improvement of the elementary education of the "masses. But as the Government of India is aware, this Government is hampered in its policy by "want of funds. On pages 212 and 213 of his report, Sir Alfred Croft has explained that this is the "reason of the insufficiency of the payments made in furtherance of primary education, and later on "(page 223) has expressed a wish that the circumstances of the Bengal Government may so far improve "as to enable it to carry out the intention which it formed in 1884 of increasing the grant by ten lakhs "of rupees. But the contract grant for both provincial and localised educational charges is now only "R32,46,000. The whole sum to be expended on primary education has to come from the allotment "of R13,10,000 for grants-in-aid. There is no immediate hope therefore of any considerable increase "in the grant for primary education. The grant during 1886-87 was only R5,47,000.... In order to "give effect to the recommendation of the Commission on primary and aided education, an additional "revenue of 14 lakhs of rupees would be required, of which only 1¼ lakhs would be paid by Muni-"cipalities, leaving 12¾ lakhs to be provided from Provincial funds. But it is impossible for this "Government to make any such suitable provision, or indeed to make any appreciable increase to the "grant now made for education. The grant made for 1887-88 rose, however, to R33,90,000. The

"Government of India may rely on the Lieutenant-Governor's determination to increase the grant on "primary education to the extent of his power, but his means are limited in this as well as in other "departments, where expenditure is urgently necessary, by the pressure on Provincial finances."

In consequence of this want of funds there is very little chance that many of the 9,133 unaided schools will be brought upon the aided list, and if this hope is taken away from the managers, many of the schools will cease to exist. In the North-Western Provinces very little has been done to improve the indigenous schools, the number of which exceeds 4,000; of these 2,914 are secular schools containing 34,161 pupils, and 1,180 are Koran schools containing 11,765 pupils. In 1886 a scheme for aiding them was drawn up and published, but apparently nothing more was done to induce the managers to accept the aid thus offered. The extract from a Madras report given in paragraph 116 shows that a great deal more than the mere promise of money grants is necessary to induce teachers of indigenous schools to alter the course of instruction in their schools, and bring it into accordance with the rules of the Department, but in the North-Western Provinces there is no proper agency for this work. The inspecting schoolmaster does not exist, though the Deputy Inspector might with justice be called by this name, as his duties are thus defined by the Director. "It should be "noted emphatically that he is properly not an *inspecting* officer, but the *head-* "*master* of a large primary school with some 80 to 100 branches, for the teaching "and discipline in which he is responsible. Every village teacher is his assistant "master, and it is for him to deal with him in precisely the same way as the head-"master of a school and not merely as an inspecting officer." This view of the duty of Deputy Inspectors exacts from them much closer supervision of the schools under their charge than is usually considered necessary, and all the Inspectors were of opinion that it would be impracticable for the Deputy Inspectors to give sufficient time to the indigenous schools to effect any permanent improvement in them; in fact, they considered the schools to be so utterly bad as to be incapable of improvement. This view was not shared by the Education Commission, for in paragraph 124 of the report it is stated that "very many of the subordinate native officials of the province are said to have "been almost exclusively educated in schools of this sort," and again that these schools "compete successfully with the halkabandi schools for popular "favour, notwithstanding the heavy disadvantages against which they have "to contend. Among these disadvantages may be reckoned the orders of "Government discarding the popular character, Kaithi, in favour of Nagari, as "that in which the village records should be kept. The indigenous schools, in "which Kaithi continued to be used, were thus heavily weighted in comparison "with the halkabandi schools where Nagari was exclusively employed." Whatever the character of the schools may be, it is clear that the new rules have done nothing to improve them. Most, if not all, of the schools to which the system of payment by results was applied were schools under missionary management, for no mention is made of indigenous schools in any of the reports. The greatest number of schools on the list was 201 in 1889-90, but two years later the number had fallen to 71.

In the Punjab the Department has endeavoured to extend primary education in two different directions, (1) by improving the indigenous schools of the province, and (2) by establishing special schools for the children of the agricultural classes. In order to facilitate the conversion of indigenous into aided schools, the conditions of aid have been made less stringent than in ordinary primary schools; the standards of examination are lower (see paragraph 118), and the minimum attendance to qualify for a grant is 10 instead of 20 scholars. The schools aided under these rules are not classed as primary schools, but are still

shown in the returns as private institutions. "Of the whole of the exist-"ing private schools in the province, it is calculated that about one-fourth, or "1,500, with an attendance of about 36,000, might be induced to add to their "ancient, and very barren, schemes of instruction a few of the most important "elements of useful knowledge; and, for this end, grants are offered on compara-"tively easy terms." The number of schools to which grants have been given is 582, and these have an attendance of 23,607 scholars. The effect of departmental influence upon private schools is thus described in the report for 1891-92:—

"Whilst there is no doubt about the good effect of the departmental influence in mak-"ing the instruction and discipline of these schools more wholesome and useful, it appears "that, when grants are earned, the people, as a rule, withhold their presents to the teachers "and the grants become the only means of their support. This is to be regretted; but "so long as the grants are only moderate, and there is no interference with the manage-"ment of the schools, the evil will be likely to correct itself. In some places Board and "Venture schools flourish side by side; but, occasionally, the discipline of the former is "injuriously affected by the greater freedom, and exemption from fees, in the latter. On "the whole, however, much good is being done by the help given to those schools; and a "new spirit of enterprize has been put into them."

Zamindari schools for the children of agriculturists were opened in 1887-88; at first the course of study in the lower classes was identical with that of an ordinary lower primary school, while in the two highest classes surveying, village accounts, and patwaris' work were taught. It was afterwards determined, on the recommendation of a Conference held in 1889, to place them on a different footing. They now work on the half-time system, each boy being required to attend one school meeting, either in the morning or in the evening; at harvest time the schools are closed altogether. The course of instruction has been simplified, and now includes only reading, writing, and native arithmetic. The number of zamindari schools gradually increased till the end of 1890-91, when there were 212 schools with 6,920 scholars, but in the following year there was a loss of 10 schools and 18 scholars. It is the unanimous opinion of the Inspectors and Assistant Inspectors that the schools are not popular with the people. "The reason seems to be, first, because the scheme does not prepare "for anything beyond the hereditary vocation, and, second, because it does not "fit on to any stage of the ordinary school course." "The aim of the half-time "system was to ensure that the boys, whilst in receipt of a suitable education, "would be kept in touch with their hereditary field work. And there is no doubt "that the softening of their children's hands was a complaint frequently urged "by the zamindars against our educational system. But there is not work for "all the children in the fields; moreover, the agriculturist is becoming alive to "the bread-and-butter advantages of education; and he would sooner, it is said, "have his children attend all day than only half-time. The consequence is that "what was purposed as one of the chief grounds of suitability in these schools, "can with difficulty be carried out, on account of the non-acceptance of the "people. It is stated by several Deputy Commissioners that the people force "the teachers to keep full-time, as well as to teach more subjects than are "allowed by the rules." The schools are not attended exclusively by the children of agriculturists, but these form nearly three-fourths of the total number of scholars. Unlike the indigenous schools, these schools are all classed as public institutions in the returns, being returned as lower primary schools. Special arrangements have been made in the normal schools for training teachers for zamindari schools.

In the Central Provinces the primary schools are said to be unpopular for three reasons: the fees are too high, the schools teach more than the people want, and the hours of study are too long. The first objection has already been met by a reduction of the fees in the primary departments of middle schools, and the Inspector General proposes to simplify the course of study. With regard to the last objection, he says—

"It is objected by parents in rural tracts that the six hours' attendance in school, "required by the rules, keep their children too long away from their work in the fields. I "think that the hours of study might, with advantage, be shortened. Three hours, say from "7 to 10, should be sufficient in rural tracts, and would enable the boys to spend the rest "of the day in field work. Proposals to this effect will be submitted. I consider, however, "that the results-aided school spontaneously started by the villagers themselves, and teach-"ing nothing but reading, writing, arithmetic and perhaps drawing, is more likely to be "popular with the people. Such schools are less bound by iron rules; three hours' daily "attendance are all that is required in the Code, and there is less expense in the way of "copy-books, drawing materials, etc. I regret to say that this kind of school has hitherto "received little or no encouragement from the Department. The future extension of "primary education, in my opinion, depends upon such schools. It is proposed to spend "the sum given by the Chief Commissioner for primary education on their extension. I "think, however, that if primary education is to make any real progress in these Provinces, "more money must be spent upon it."

In 1891-92 an additional grant of R25,000 was made for the purpose of extending primary education. The most unpopular part of the course of study was manual training, and after the end of the period under review it was transferred to the list of optional subjects. Drawing, on the other hand, is an exceedingly popular subject, and there is a great demand for it in the primary schools, but it will be some time before the supply of teachers will be sufficient to meet this demand. The educational system of Burma has been explained; it is sufficient to state here that it is in accordance with the recommendations of the Commission. In Assam there is no indigenous system for the Department to work upon, except Koran schools, and these in most provinces scarcely deserve the name of schools. In Bengal "the two Muhammadan Assistant "Inspectors are agreed in urging the exclusion of Koran schools from the "returns. These have been introduced into the returns under the orders of the "Government of India; but it is alleged that they have no rightful place there, "since they serve no purpose of secular education whatever. They teach only "the chanting of the Koran, in some cases without even any acquaintance with "the alphabet. Dr. Martin, Inspector of Schools in Behar, considers that their "retention in the returns would justify the inclusion, under the section on Euro-"pean education, of the Sunday schools kept up for the benefit of Christian "children." In the Punjab it is stated that the teachers are often unable to read or write, and some of them are blind. Excluding these Koran schools and a few elementary tols, which are also of a religious character, the returns show only nine private schools in Assam teaching a vernacular, and these are all said to be adventure schools which could not be classed as unaided, because they did not keep regular registers. Although there are no secular indigenous schools, the system of payment by results has induced a large number of persons educated in the schools of the province to open pathsalas in the hope of obtaining rewards. The number of schools of this class, aided and unaided, appears to have increased from about 250 to 850 in the five years, but the exact numbers are not given. There has also been a considerable increase in the number of schools belonging to missionary societies, but most of these are intended for aboriginal tribes, and will be referred to in the next paragraph. In Berar all the indigenons schools

except Koran schools are included in the list of aided and unaided schools; they are all regularly inspected, and those that succeed in passing candidates by one or other of the standards appear as aided schools, and those that fail to do so are classed as unaided. As in other parts of India, these schools are very unstable: one officer writes—

"As far as my experience goes, indigenous schools are started by well-to-do patels for "the sake of educating their children, and they often persuade other parents to join them, "the patels being the principal patrons. These institutions are very temporary and never "last long. They are kept up by private contributions for a time, and in a short time "collapse."

A proposal was made to regulate the amount of grant by the number of years the school had been in existence, but for financial reasons it was not adopted. In Coorg there are a few indigenous schools, but apparently nothing has been done to improve them; the allusion to them in each annual report is merely a reference to a description of the various classes of schools given in the report for 1882-83.

127. Special measures for aboriginal and backward races—It is extremely difficult, if not altogether impossible, to form an estimate of the number of persons belonging to races coming under one or other of these designations, or of the number of children of these races attending school. These statistics are not called for in the returns prescribed by the Government of India, and therefore there is no uniformity in the method adopted in the provincial reports for showing the progress made.

The report of the census of 1891 is not yet complete, but some information regarding these races can be obtained from the volumes that have already been published. In the provinces of India and the Feudatory States of Bombay and the Central Provinces the total number of persons returned under the head of "Animistic Religions" is nearly 6½ millions. "The term Animistic has been "adopted comprehensively for the religions of forest tribes who do not accept "the Hindu system, and have not been converted to Christianity or Islam." This definition is not wide enough to include all the aboriginal and backward races of India, but it is extremely improbable that it includes any races that do not come under this category. That the number excluded is very large may be gathered from the fact that in Bombay, Assam, and Berar, for which complete reports have been published, the number shown as belonging to forest and hill tribes is over 2,900,000, while only 1,400,000, or less than a half, are included under the head of Animistic Religions. Even this larger number is incomplete, for immigrants to Assam from the aboriginal tribes of Chota Nagpur and other parts of India are not included in the total. The total number of forest and hill tribes, therefore, is certainly not less than eight millions, and may greatly exceed this number. The language test would give a total of about six millions of aborigines, reckoning as aboriginal languages those included in the census reports under the classes—Northern Dravidian, Kolarian, Gypsy Dialects, Khasi, and Tibeto-Burman, but excluding the Burmese group from the last class.

Table IX of the general census tables for India shows that among the people belonging to Animistic Religions the percentage of boys at school is only 1·7, taking 15 per cent. as the number of boys of school-going age; for girls the percentage is only ·18. For all religions the percentages are 15 and 1 respectively; these figures are sufficient to show the extremely backward state of education among the forest tribes of India. With regard to the distribution

but in the hill tracts of the north and east some schools have been established by Government. One of these in the Chittagong Hill Tracts has been raised to the status of a high school; the Bhutia Boarding School at Darjeeling, referred to in the last Review, has been made a department of the local zilla school. In the Dacca division there are two girls' schools which are attended only by girls of aboriginal races, and are taught by two female teachers belonging to that race. In the Central Provinces the number of pupils classed as "Gonds and other aboriginal tribes" was 2,001 in 1886-87 and 2,083 in 1891-92; in the latter year they are grouped with the unclassified children shown under the head of "Others" for the purpose of calculating the percentage of children at school, so that presumably those included under the latter head also belong to backward, if not to aboriginal, races. Taking the two classes together the total number has increased from 5,393 to 6,057. About 1 in 25 of the boys of school-going age is at school, and about 1 in 2,500 of the girls. The increase would have been greater but for the mistake made in the Betul district described in a previous paragraph, which caused a large number of schools to be closed. The following report on the efforts of the Church Mission Society by the Reverend H. D. Williamson is given in the report for 1886-87:—

"Owing to the want of satisfactory teachers, and the consequent mismanagement resulting in "non-attendance of the scholars, the two or three small Gond schools which we had at one time in the "district have been discontinued: and as a result of experience thereby gained our feeling is now that "such schools, if far from head-quarters, cannot be satisfactorily carried on, unless the agents employed "be of a far better class than those we were enabled to employ. The Gond parents apparently care so "little for their children being educated that they can only be induced to send them regularly by a "man possessed of infinite tact and patience, one who will take the trouble to ingratiate himself with "them and one who can also gain the affections to some extent of the children. Of the men whom I have "engaged, only one succeeded in these respects, and when I had reluctantly to withdraw him for more "important work elsewhere, his successor let the school fall through almost immediately. We have "had and still have a small school at Mangalpur, 15 miles north of Mandla, attended by about 10 "boys, but all of them are not Gonds; and we have supplemented this by a night school for adults "which at those seasons of the year when agricultural work is slack has been attended by about half "a dozen men. Mrs. Williamson has also had a small school here in Mandla, of little boys and girls, "some of them children of Christian parents, but the attendance has been very irregular, varying from "6 to 18. The unsatisfactory nature of these efforts determined the Church Missionary Society on my "representations to establish a boarding school for Gond boys, and to appoint a special missionary for "this work: but it was not till January 1887 that affairs were advanced enough for a start to be made. "A bungalow, school-house, teacher's house, etc., are now completed, and the Reverend E. P. Herbert "has taken up his residence on the spot as Superintendent: the site chosen being some seven miles "east of Mandla in the jungle, surrounded on all sides by Gond villages. All that has been done at "present has been to commence with a day-school which is fairly well attended and is likely to become "more so when the timidity and suspiciousness of neighbouring Gonds have been to some extent "overcome. As the same place is also to be our medical head-quarters under Dr. W. Johnson, we "may reasonably expect that the radius of its importance will widen, and that here and there "increasingly every year we may find parents wishing for their children's education and willing to "send them. The only difficulty will be at the commencement, and already some of our Gond "converts are seriously taking the matter into consideration."

The Inspector General added to this report, "when the school is fairly "started I think both carpentry and smith's work might be taught to the Gond "boys, and other practical instruction given. Evening classes might also be "opened for the elder children, so that they may not forget their hereditary employ-"ments and become less skilled than their fathers in the use of the axe and in wood-"craft." The later reports do not state what progress was made, and after 1887-88 the mission school is not mentioned. There are a few special schools for Gonds and Dhers aided by the Department, the rates at which grants are given being 50 per cent. higher than for other classes. It is hoped that better results as regards the education of the aboriginal tribes will be obtained shortly, as the inspecting

agency in Chattisgarh is about to be strengthened. The provision made in Lower Burma for the education of Karens has already been described; the Chins are the only other aboriginal tribe represented in the schools; for them two or three schools have been opened by the American Baptist Mission.

In Upper Burma very little has yet been done, but a few schools have been established by missionary societies among the Shans, the Kachins, and the Chins. Among the Shans the American Baptist Mission have established two schools at Thibaw and Monè, which contain 22 boys and 5 girls; at the former place the Sawbwa, who is sufficiently enlightened to have sent his two sons to England to be educated, provided a site for the school, and timber to build it, and is also constructing a hospital for the Mission. Each pupil pays a fee of eight annas a month, and instruction is given in Shan, Burmese and arithmetic, as well as in Christian doctrine. At Monè also two local Sawbwas have given their support, and this has induced the people to send their children to the school. "The Superintendents of the Northern and Southern (Shan) States are strongly in favour of the establishment at Lashio and at Fort Stedman respectively of an Anglo-Vernacular Primary boarding school for the education of the sons of the Chiefs and the leading officials and merchants, who alone as yet can afford to pay for the education of their children, and whose children are every whit as illiterate as those of the populace. For the present it may be said the masses cannot pay for education, have not much time or inclination for it, and can earn their living without it. Were the new system of instruction brought directly to their notice, however, it is probable their views would undergo a change, the more so as every pongyi would be glad of the chance of having books and an assistant teacher to attract and retain pupils and to earn grants." Among the Kachins there are no priests and no kyaungs, and therefore no indigenous system of education. The most important school for children of this tribe is the American Baptist Mission School at Bhamo, which contains 41 boys and 22 girls, all but three of whom are Kachins, nearly all of them being boarders; the school has reached the upper primary standard; and at the last provincial examination by this standard a Kachin girl stood 11th in order of merit among the passed candidates of Upper Burma, while all the Kachin examinees were superior to the others in the subject of geography. "Trained teachers have been placed at Bhamo and Mogaung with special injunctions to acquire a colloquial knowledge of the local Kachin dialect and to train young Kachin pupils for future use as departmental teachers in their native village."

A grammar and dictionary of the Chinpaw language, the *lingua franca* of the Kachins, have recently been completed by the Rev. O. Hanson, the Superintendent of the Mission. One or two other smaller schools have been opened by the same mission, and one by a Roman Catholic Mission.

Among the Chins less progress has been made; one small Roman Catholic school has been opened, and it is proposed to open two indigenous schools under departmental supervision.

The Assam reports give a detailed classification of the non-Christian aboriginal pupils, but do not state how many of the scholars returned as Native Christians belong to the aboriginal races. Including them the total number is probably not less than nine or ten thousand, and the number has increased during the last five years. There are a few departmental schools in the Naga

and Garo Hills which are intended for these classes, but their education is chiefly carried on by various missionary societies, which have 257 schools with 5,138 pupils, all of the lower primary class, and situated in the hills, or among colonies of aborigines in the plains. The Secretary of the Khasi and Jaintia Hills Schools writes—"Let me remark that there are many schools not reckoned in the official list.... I am afraid I cannot report much progress as regards the quality of the schools, but what change there is is certainly in the direction of improvement. I say this in spite of the fewness of the number of the children presented, and who passed the last Government examination. This can be easily accounted for. There are many in our schools who are quite capable of passing the lower primary examination, but who are too apathetic even to appear at the examination. A good number also were quite prepared to appear at the last examination, but who were prevented from doing so by the epidemic of influenza that was prevalent at the time." In Berar there was only one school for aborigines in 1891-92 against two in 1886-87, but the number of pupils of this class rose from 56 to 130.

With regard to low-caste children, there is not much available information. In Madras the number of Paraiyas and kindred classes at school in 1891-92 was 22,888, the percentage being 4·5 for boys and ·77 for girls. The grant-in-aid rules place them on the same footing as aboriginal children; "the "inspecting officers are being required to pay more than usual attention to the "amelioration of the educational condition of these people, and Local Boards and "Municipal Councils are being urged to open special schools for them. Pro-"posals are now before Government to grant special concessions in the matter of "aid to schools intended for these classes. I expect that these steps will effect a "marked improvement both in the number of schools and in the attendance. But "owing to the extreme poverty and apathy of these classes, to the want of "adequate funds to start schools at once in all the Paraiya villages, and, lastly, to "the jealous and interested opposition of their employers and of village officials "and others, the progress must necessarily be slow for some years to come." In Bombay the number of pupils belonging to the depressed castes increased from 8,165 to 10,630 in the first two years of the period under review, but no statistics are given for later years. In the report for 1888-89 the Director says—"I would deprecate any special inquiry into the number of children at secondary "schools. It is not always convenient to have our antecedents traced out, es-"pecially if we have changed our religion or altered our social habits with the "view of rising to a higher stage of civilization ..... I may add that too minute "inquiries are to be deprecated even in the case of primary schools, as such "inquiries are likely to result in the enumeration of doubtful classes who might "otherwise pass muster with the bulk of the community." The Code does not provide for any special rate of aid for schools intended for these castes. In the Punjab "no child of any caste is debarred from attending the ordinary public "schools; and throughout the province instances occur of sweeper and *chamar* "boys attending the Board and aided schools, and passing the examinations But "they have to sit outside the class line, frequently in the door-way; and this "school-boy social ostracism forbids the hope of educational progress among this "class of people by the ordinary means." Hence special schools have been established in most of the circles, the total number being more than a hundred, most of which are managed by missionary societies. These schools are aided either under the ordinary rules, or on the same terms as indigenous schools. In

the Central Provinces no separate statistics are given for low castes; grants are given for them on the same terms as for aborigines, and the two classes are shown together in the reports. Low-caste children are freely admitted to all departmental and District Council schools; in some cases they sit with the other pupils, but in others caste prejudices compel them to sit apart. In Assam low-caste children are admitted freely in all classes of schools, and sit on the same benches with boys of higher caste. There are no special schools for them, as such schools are considered unnecessary by the Department, and likely to do more harm than good by stirring up the feeling of caste prejudice, which has practically died out in the schools. In Berar low-caste pupils are admitted to all schools under public management, and every effort is made to put a stop to the practice of separating them from the other scholars. In large stations the castes mix freely, and one instance is recorded of a class containing high-caste scholars being taught by a low-caste teacher. In these schools the number of low-caste scholars increased from 1,344 to 1,681, and there were also 729 in schools under private management. The number of special schools is only 4; orders were given for closing one of them, at Bubhali, "which was reported to "be in an unsatisfactory state at the last annual examination; but the Mahar "community having sent in a petition promising every help and praying for the "continuance of the school, a further trial for six months was given to it." These Mahars, or Dhers, form nearly an eighth of the entire population of Berar, and are the most important section of the class of village servants, watchmen, etc.

In the report for 1889-90 the Officiating Director stated that in several cases he had found that boys of low caste were compelled to sit in the verandahs of the schools, and so did not receive proper attention from the teachers, and he recommended that special schools should be established for them, and this recommendation was accepted by the Resident. In the following year the Officiating Commissioner, Colonel Mackenzie, took a different view, and as his opinion is supported by the result of personal experience, it may be quoted *in extenso.*

"On the important point touched on by the Commissioner in last year's re-"port and referred to by the Resident in paragraph 14 of his review, namely, the "segregation of low-caste boys into special schools of their own, I fear the result "will generally be failure, as now reported at Bubhali, and for much the same "reasons. Anyhow, as a matter of personal opinion, I think it unwise to en-"courage and stereotype views in respect of caste which we ourselves are "assured are due either to the ignorant folly or cunning scheming of some "among the masses over whom we are placed and whom it is our destiny to in-"fluence and educate. It is perhaps permissible for us to walk deferentially as "long as we are in any doubt ourselves as to the correctness of the views we "mean to inculcate; but if our mind is made up and we know we are right, I "believe the proper, and in the end the paying policy is to maintain our views "against all comers.

"We know caste to be baneful, as understood and used in India, in a "thousand ways, and I think we ought to do everything in our power, short of "using force, by precept and example, to show that its maintenance is folly, and "that it bars the way to all real advance and improvement. To say to the "people at large our schools must be open to all irrespective of caste (but if any "object to associate with so-called low-caste boys, the remedy, but also the loss, "is in their own hands—they can stay away) could never, I maintain, be really "misunderstood or impugned. To act otherwise is virtually to condemn asso-

"ciation with ourselves, for every one of us is low-caste in the eyes of the "orthodox, so-called high-caste Brahmins—foolish and on this point unenlight-"ened as we deem the orthodox Brahmins to be. Not to yield in this matter is "not, I hold, to run counter to the feelings of the great masses of the people, as "the Chief Commissioner of the Central Provinces is reported to allege, but it is "only I believe to run counter to the opinions of a few stupid and possibly in-"terested Brahmins, many of them in all other respects reasonable and accept-"able men, who happen for the present to be at the head of most of our schools.

"I can support my opinion in this latter respect with a fact of some signi-"ficance. Some years ago I was Officiating Deputy Commissioner at Akola; "at Khamgaon, one of the district towns, Captain (now Colonel) Wodehouse, "Political Agent at Kolhapur, was the Assistant Commissioner, and he had "under him at that time one of the best and most flourishing of our schools. "The order had gone out that low-caste boys previously relegated to the verandahs "should be admitted within. A great storm in a tea-cup immediately arose. "Petitions purporting to be from parents and others poured in, saying the school "would be deserted by all the higher castes if the obnoxious order was not re-"pealed. No withdrawals took place within the interval that it took for reply "to the petitions to get back; but when it was known that we meant to stand "firm, Captain Wodehouse reported one morning that the school was deserted "by all except a few low-caste boys. I then went to Khamgaon, and we inter-"viewed the supposed indignant public and outraged parents—the masters to "a man professing to be on our side and wondering at the folly of the multitude. "It seemed to me, however, that the masters, and not the multitude, were at "the bottom of the disturbance, but I left them to consider the position for a "week, they promising their best help to wean the public over. The end of "the week saw the school still deserted, and the masters professedly extremely "regretful at the state of affairs. We—that is Captain Wodehouse and I—joined "in their regrets, but pointed out that it was quite impossible that we could now "continue to maintain a teaching staff so largely in excess of the requirements of "the few low-caste boys who came to the school, and we fixed adequate time "within which, if the school did not revive, the staff was to be reduced. The "time came and, curiously enough, the school did revive and went on more "flourishingly than ever."

"I feel convinced that on this point enlightened young India, the younger "generation of even the highest Brahmins, is with me, though, in fear of the "elders of their race and their womenkind, they are not in a position yet openly "to admit that caste, as understood and worked in India, is folly and hurtful to "the best interests of the people, and therefore ought not to be directly or indi-"rectly encouraged by us. Hence I would have no special class schools for "any body; and if I were in authority and were to catch any master, however "'high' he might consider himself, be he English, Hindu, or Muhammadan, "dealing with a low-caste boy as Mr. Barrett reported he caught one man doing, "I should consider it my duty to see that he was given very short shrift and "speedily removed from the Department."

In Coorg there was one special school for Paraiyas with 17 pupils in 1886-87 and 18 pupils in 1891-92, and another school of the same class had been sanctioned. In the former year there were 32 Paraiyas in other schools; for the latter year no returns are given. In the last Review Sir Alfred Croft stated that the

Government of the North-Western Provinces objected to a declaration that low-caste children should not be refused admission to schools; this objection was noticed by the Governmnnt of India in the Home Department letter No. 297, dated the 9th August 1888, but no reply was given to this portion of the letter, and the question is not referred to in the annual reports. The departmental codes do not show that any special provision has been made for low-caste children.

128. Methods of aiding Primary Schools.—The methods of regulating aid to primary schools have been described in the preceding paragraphs. The system recommended by the Commission, that of payment by results, is applied in all provinces where aided schools are numerous; but in some cases fixed stipends are given in addition to the amounts earned, in order to ensure the stability of the schools. In Bengal some of the Local Boards showed a preference for the purely stipendiary system, but recent orders of the Local Government will restrict aid by fixed stipends to schools in backward places, where the application of the results system would render the amount of the grant too uncertain to induce private persons to open schools.

The Commission recommended (VII, 9) "that native and other local "energy be relied upon to foster and manage all education as far as possible, "but that the results be tested by departmental agency;" the first part of this recommendation has been acted upon in all provinces, but in some cases the second part has been overlooked. In Bengal the Boards took over the control of the examinations of primary schools at the same time with the funds for aiding them. In 1888-89 one Deputy Inspector reported that "the Board set "the questions themselves, which were too easy; and in their over-anxiousness "to show that primary education has not deteriorated under their management "overlooked the rule that requires a candidate to secure one-fourth marks in "each subject and two-fifths of the aggregate in order to pass." The Director adds—"The results of the examinations, moreover, show such startling varia-"tions as to raise considerable doubts as to the maintenance of even a shadow "of uniformity in the standard. The only escape from the present difficulty is to "transfer the conduct of these examinations from local to central management "in the case of every division." In one circle the same papers have been used at all centres for several years, but as yet nothing has been done to secure uniformity of standard in other circles. These remarks apply only to the lower primary examinations; the upper primary and middle examinations are conducted by the Inspectors. In Assam the same difficulty is felt; in this province an attempt was made in 1887-88 to reduce the inequality of the standard of the lower primary examination in different districts by holding one general examination for all the districts once in five years. This general test serves a double purpose; the questions set may be used as models by the local examiners, and the results assist the Department in detecting variations of standard and therefore in gauging the efficiency of the schools. The primary school examination of Madras is conducted by local boards of examiners, who are also entrusted with the examination of the two lowest classes of middle schools.

Some officers of the Department are opposed to the recommendation of the Commission (IV, 6) "that examinations by inspecting officers be conducted as far "as possible *in situ*;" the opinions of two of them may be quoted: the Inspector

of Schools in Assam says that schools are invariably inspected *in situ*, "but "I cannot help recording that I dissent with the Commission's views here :— "The rivalry caused by assembling and examining two or three schools "together, I am convinced, forwards education in no small degree, and the fact "that the teachers would meet, consult, and compare notes would be of no "small advantage to them. The Commission seem to recognise this in the "concluding portion of their second recommendation on internal administration." In describing the new upper primary examination in the Central Provinces one of the Inspectors reports —"It was thought that the people would object "to allowing their children to leave home to attend the examination at the "different centres; but the valuable assistance of the School Committees in the "matter of providing conveyance, food, and lodging enabled the Deputy Inspec- "tors to secure the attendance of a large majority of suitable candidates. The "examination at each centre lasted four days, the last day being devoted to "sports and gymnastics, the Committees and others interested supplying the "prizes. On the whole, this new departure has proved very successful." The "Inspector General adds—"One of the most interesting features of the examin- "ation is the stimulus which it gives to out-door sports, and the pleasure the "boys take in travelling to other villages, not to speak of the wholesome "emulation between school and school, and the slight knowledge of the world "both masters and boys may gain from visiting other places and comparing "notes with other schools. I consider the introduction of the pleasurable "element into education as no small factor in that it tends to popularize educa- "tion with the people, and, in a measure, relieves the daily task of some of its "monotony."

129. Revision of Standards.—The changes made in the primary standards have already been indicated, but it is now necessary to consider these changes with reference to the recommendation of the Commission—"That the "standards of primary examinations in each province be revised with a view to "simplification and to the larger introduction of practical subjects, such as "native methods of arithmetic, accounts, and mensuration, the elements of "natural and physical science, and their application to agriculture, health, and "the industrial arts; but that no attempt be made to secure general uniformity "throughout India." In Madras all the subjects named in this recommendation form part of the recognised course in primary schools, and at the last primary examination 458 candidates passed in agriculture, 116 in drawing, and 85 in mensuration, all of which are optional subjects. In Bombay the ordinary primary course contains none of the subjects but native methods of arithmetic, since the primary schools are intended for scholars who intend to go through the full course of secondary and collegiate instruction, as well as for those whose education will end with the primary course. In the two extra classes of primary schools above the upper primary standard, which correspond to the secondary classes of middle vernacular schools in Bengal, hygiene is a compulsory subject in Government schools, and mensuration is an optional subject. At the last examination 2,685 boys and 15 girls of Standard VI passed in the Sanitary Primer, but the number of passes in mensuration is not stated. The Code does not allow any grant for passing in this subject, so there is not much inducement for the schools to teach it. In Bengal native methods of arithmetic and a Sanitary Primer are compulsory through-

out the primary stage, and native methods of mensuration in the lower primary stage. For the upper primary examination candidates must take either elementary science or agriculture. In the North-Western Provinces and the Punjab mensuration is the only subject that has been introduced, but Rent Revenue Law, which is also of practical utility, is added to the course in the former. In the Central Provinces the recommendation of the Commission has been very completely carried out; the list of compulsory subjects of instruction in upper primary schools includes native methods of arithmetic, drawing, agriculture in rural schools, sanitation, and common objects, meaning "an elementary knowledge of animals and plants, with special reference to agriculture, and of metals "and other substances employed in the arts and manufactures carried on in the "district in which the school is situated." Mensuration is omitted from the primary course, but finds a place in the curriculum of middle schools. Manual training was also a compulsory subject till recently, but in consequence of its unpopularity it has been made optional. Prizes are given for agriculture and common objects on the result of the upper primary examination; on the last occasion 4,752 candidates passed in agriculture, and 5,597 in common objects. In Burma the only subjects introduced into the primary course for indigenous schools are hygiene and drawing, both of which are optional. In Assam native methods of arithmetic were added to the course in 1887, but it has not been found possible to introduce the other subjects. In Berar hygiene and book-keeping have been taught in primary schools since 1887. In Coorg the rules are nearly the same as in Madras.

130. **Physical, moral, and religious instruction.**—The physical and moral training of scholars will be dealt with in a separate chapter. Religious instruction is not given in schools under public management, and in aided schools it rests with the managers to decide whether it should be given or not. There is no interference on the part of the inspecting officers, and their reports deal only with the secular instruction given.

131. **Fees and exemptions.**—The recommendations under this head were that in all schools receiving support from public funds fees should be levied, but that a certain proportion of the pupils should be admitted free on the ground of poverty, and that children should not be exempted from the payment of fees merely on the ground that their parents were cess-payers. The last clause may be considered first, since, in consequence of the remarks in the last Review, the question was referred to the Governments of four provinces. In Berar there appears to have been no cause for this reference, for the children of cess-payers had been treated in the same way as others for many years before the Commission was appointed. The reply of the Government of the North-Western Provinces was to the effect that the matter was entirely in the hands of the Boards, and that no action could be taken except through them and with their consent, but that the charge of a small and almost nominal fee, not exceeding two annas a month in the highest class, had been recommended to the Boards. In the Punjab it was stated that "the levy of fees at half rates from the children "of agriculturists in the upper department of primary schools gave rise to very "considerable discontent amongst the agricultural community, who, though they "use the schools very little themselves, are keenly alive to the fact that they pay "for them. It was therefore thought expedient to allow such children like those "attending the lower department to be exempted altogether. In view of the great "desirability of inducing agriculturists to avail themselves of the educational ad-

"vantages that are offered to their children, and of the strong feeling that has "been shown by zamindars on this subject, His Honour is of opinion that it would "be very inexpedient to insist on the levy of fees from the children of agricul-"turists attending primary schools at present." The subject is, however, to be reconsidered during the current year. In the Central Provinces a notification was issued in 1888, placing the children of cess-payers on precisely the same footing as the children of other classes of the people.

In Madras the school-fee notification of 1887 went a good deal further than the recommendation of the Commission with regard to the English-teaching primary schools, since it fixed the minimum fee to be charged in different classes of schools, while the Commission merely recommended that some fee should be levied. At the beginning of 1892 a new notification came into force, which gave to the managers of all aided schools the option of levying fees or not, and also to Boards in the case of vernacular schools managed by them. The principle that all children should be required to pay fees, unless specially exempted on the score of poverty, has therefore been abandoned, for the retention of a fixed scale of fees in Anglo-vernacular schools is based upon different considerations, which are explained in the following extract from a letter of the Director:—

"It might be argued that if there is to be no minimum fee prescribed for schools under private "management, there should be none prescribed for schools under public management. But this would "be to overlook the position which Government and Board institutions occupy, or are supposed to "occupy, in the educational system of this presidency. If they are to occupy the position of models in "the matter of equipment, organization, efficiency and discipline, it is highly expedient that their fee "regulations should be publicly known. It is also eminently desirable that it should be clearly under-"stood that Government has got settled opinions as to what fees may reasonably be levied in institu-"tions under public management, and that it is resolved not to permit any such institution to cripple "private effort by lowering its fees, or by laxity in its fee regulations, merely with a view to underbid "a school under private management."

This change of system was introduced only three months before the end of the period under review, so that it is impossible to show by statistics its effect on the fee receipts of different classes of schools. In Bombay the Grant-in-aid Code does not state definitely whether the levy of fees is a condition of aid or not, but apparently this is not the case, since it appears that even in Board schools the levy of fees is not universal. In Bengal fees must be charged to all scholars in Board schools, except from such as may be exempted under rules prescribed by the Department, and primary schools for boys, except those for aborigines and low castes, are ineligible for grants unless a monthly fee, however small, is taken from all scholars not specially exempted. In the North-Western Provinces the village schools are entirely under the control of the Boards, and they levy fees or not at their own discretion; to what extent they do so is not stated in the reports, but the average fee receipts per scholar for the year 1891-92 in all the primary schools under the Local Fund Boards amounted to only 2½ annas, a much lower average than that of any other province. The Boards being thus allowed a free-hand in the matter of fees, it follows that fee payments cannot be insisted upon in the case of aided schools of the same class, though the Local Government has fixed a minimum rate of fee in all departments of aided Anglo-vernacular schools; these schools do not enter into competition with the board schools, but with the zila schools in which also the rates are fixed. In the Punjab fixed rates are prescribed for each class of a primary school under Board management, ranging from one anna in the lowest to five annas in the highest, and aided schools are required to charge fees equal

to 75 per cent. of these rates. Besides the children of agriculturists, 10 per cent. of the scholars may be admitted free on the ground of poverty. In the Central Provinces the managers of aided primary schools which are not connected with schools of higher grade have discretionary powers regarding the levy of fees, but in schools under public management there is a fixed scale based upon the income of the parents or guardians of the children, the lowest rate being half an anna and the highest eight annas a month. In Burma it is impossible to insist upon fees being paid in monastic schools, but no grant is given to a lay school unless a reasonable fee is charged; there is no fixed minimum, but eight annas a month appears to be regarded as a reasonable rate, and in many schools the fee receipts amount to R15, R20, or even R30 a month. Considerable difficulty is, however, experienced in inducing the managers of schools to charge fees, and the parents to pay them, for the educational traditions of Burma are all in favour of free tuition, both in monastic and in lay schools. In Assam a large number of the aided schools are intended for backward races, and no fees can be charged; this is also the case with many board schools; fees are charged when practicable, but children are not excluded on the ground of their inability to pay for their education. In Berar the fees in schools under public management were raised in 1887-88; the present rates are two and three annas for most of the pupils, but there are many exceptions. In Coorg fees were charged in the Government primary schools for the first time in 1886-87, the rates varying from one to three annas, and all boys too poor to pay being exempted, as well as all girls.

The fee rates above quoted refer only to true primary schools, and not to the primary departments of secondary schools, the fee rates in which have been stated in the preceding chapter. English-teaching primary schools have also been excluded, for they are usually of the same character as the primary departments of Anglo-vernacular schools.

The following table shows for each province the average incidence per scholar of the expenditure from fees in 1891-92. Since primary schools are very rarely self-supporting, the figures (if the returns are correct) differ very little from the average amount paid by each scholar. Whenever the number of schools is very small, or a considerable proportion of the schools differ in character from ordinary primary schools, the figures are printed in italics.

Average fee—expenditure per pupil in Primary Schools for boys, 1891-92.

Province.	In Institutions.		
	Under public management.	Aided.	Unaided.
Madras	·79	1·27	1·38
Bombay	·74	·92	(a) ·68
Bengal	*·62*	1·54	1·66
North-Western Provinces and Oudh	·23	1·02	*1·50*
Punjab	·52	*1·95*	*1·45*
Central Provinces	·62	·48	(a) ·16
Upper Burma	...	·15	(b)
Lower Burma	*6·95*	·21	(b)
Assam	·33	·58	·45
Coorg	·69	*·95*	...
Hyderabad Assigned Districts	·90	2·53	3·16
India	·61	1·37	1·04

(a) Inclusive of the institutions maintained by Native States.
(b) Expenditure not shown.

Berar shows the highest average for all classes of schools, Bengal coming next. In Bombay and the Central Provinces the average is lower than might be expected considering that the primary schools include the primary stage of secondary schools.

132. Night Schools.—Statistics regarding schools of this class are found in the reports of only two provinces, Madras and Bombay. In Bengal, however, they are said to be very numerous, though with very few exceptions they are reported to be of little worth. One Assistant Inspector remarks that "they are "merely a show, *providing no education to the labouring classes*, and putting a "lot of ill-gained money into the pockets of dishonest gurus." In one district alone a favourable opinion is expressed; the schools are said to be "fairly attend-"ed and regularly conducted," which appears to be due to the influence of the Magistrate, "who impresses upon the day-labourers the desirability of attending "the night schools." These extracts are taken from the report for 1886-87; no information about night schools has been found in the later reports. In Madras the number of these schools rose from 366 in 1886-87 with 7,828 scholars to 803 in 1891-92 with 14,799 scholars: one of these schools is classed as lower secondary or middle, and all the rest are primary. Forty-five of the primary schools are managed by Local Boards, 347 are aided, 395 are unaided, or in other words have not yet succeeded in earning rewards, and 15 are private institutions. Fees can seldom be levied, and if paid at all they are paid in kind. The departmental opinion of the value of these schools may be gathered from the following extract from the resolution on the report for 1890-91:—

"It is observed, however, that the Director is not disposed to attach much importance to the "work done by these schools."

In Bombay the number of night schools and classes has risen from 281 to 362 and that of scholars from 7,597 to 8,497. Schools in large towns, such as Bombay and Poona, are said to be popular, and to do good work, but the opinions regarding rural schools are not very favourable. In Sind the Inspector says "night schools are rarely needed in rural districts, as the mosque schools are "open at all hours of the day and instruct a large number of adults." Another Inspector says, "these schools do not seem to fulfil the expectations entertained "of them." In some of the other provinces the grant-in-aid rules admit of grants being given to night schools. In Madras they are aided entirely on the results system; in Bombay the grant is based on the average attendance, and may amount to from R15 to R50 a year; in the case of large night schools attached to mills and factories and having an average attendance of upwards of 50 scholars, the maximum grant may be R100. In Bengal Local Boards are authorised to give fixed monthly grants to night schools on more liberal terms than to other schools. In the Punjab grants are given on the results system, as in other schools, but on easier terms, and the same is true of the Central Provinces.

CHAPTER VII.

TRAINING SCHOOLS.

133. **Different Classes of Training Schools.**—Training schools are included among institutions for special instruction, since their object is to train students for a special profession, but it is open to question whether they would not be more appropriately counted as institutions for general instruction. Some of the schools included under this head differ from ordinary schools only in the fact that the scholars are older, and that some of them will eventually become teachers, no attempt being made to give any technical instruction. In others, including a considerable number of departmental schools, instruction in the art of teaching is said to be given, but as the teachers themselves are untrained men, the instruction given is not of much value, and very often the students merely "cram" the subject out of the prescribed text-book. In a few institutions the instruction is exclusively technical, the general education of the students being completed in other schools before admission to the training schools: even in this case, however, the technical instruction is so closely connected with general education that it seems unnecessary to class it as special. In the majority of training schools both general and technical instruction are given, and the final examination for certificates includes both branches of the course. In some provinces, too, a considerable proportion of the teachers are trained in ordinary schools under the pupil-teacher system, and the grants given for their training are added to the ordinary grants to the schools, so that it is difficult to ascertain what is the exact expenditure on the training of teachers.

Training schools may be divided into three grades,—collegiate, secondary and primary,—according to the grade of instruction to be given by the students after completing their course of training. In all the schools of the collegiate grade English is the medium of instruction, and the vernacular is the medium in all primary training schools. Most of the secondary schools are vernacular institutions, but in a few, chiefly in Madras, English is taught. The initial and final qualifications for these grades vary in different provinces, depending to a great extent upon the length of the period of training. The guru-training classes of Bengal and Assam form a still lower grade, their object being to train gurus for lower primary schools. The sessional schools of Madras are also included among training schools, though they are really preparatory schools for teachers wishing to enter a training school.

134. Training Schools for Masters.—The following table shows the number of these institutions on the 31st March 1887, and on the same date of 1892, as well as the number of students in them:—

Training Schools for Masters, 1886-87 and 1891-92.

Province	1886-87.										1891-92.									
	Maintained by the Department.		Maintained by Local and Municipal Boards.		Aided.		Unaided.		Total.		Managed by Government.		Managed by Local and Municipal Boards.		Aided.		Unaided.		Total.	
	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.
Madras	4	74	34	800	5	193	3	44	46	1,111	29	1,041	14	244	7	154	1	5	51	1,444
Bombay	4	483	...	...	1	58	2†	93	7	634	5	519	...	...	1	70	2(a)	85	8	674
Bengal	16	716	...	...	6	477	...	...	22	1,193	15	658	...	...	6	229	...	...	21	887
N.-W. P. and Oudh	...	...	10	356	1	26	...	...	11	382	4	334	...	...	1	22	...	...	5	356
Punjab	5	315	...	...	1	39	...	...	6	354	6	357	...	...	...	...	...	...	6	357
Central Provinces	3	194	...	...	...	...	...	...	3	194	5	176	...	...	...	...	...	...	5	176
Upper Burma	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lower Burma	3	92	...	...	...	...	...	...	3	92	2	63	...	...	...	...	...	...	2	63
Assam	8	243	4	74	1	65	..	...	13	382	6	134	7	95	1	111	2	12	16	352
Coorg	1	13	...	...	...	...	...	...	1	13	1	10	...	...	...	...	...	...	1	10
H. A. Districts	1	96*	...	...	...	...	...	...	1	96	1	94	...	...	...	...	...	...	1	94
Total	45	2,226	48	1,230	15	858	5(a)	137	113	4,451	74	3,386	21	339	16	586	5(a)	102	116	4,413

* Includes 20 pupil-teachers attending other institutions.

† Includes two schools in Native States in Bombay.

The figures in the above table agree with those given in General Table III of the provincial reports, except that the Madras Teachers' College has been added to the list; being affiliated to the Madras University, it is shown in the returns as a professional college. The table does not, however, accurately indicate either the total number of persons undergoing a course of training as teachers in each province, or the number of institutions in which such training is given, for in many cases institutions have been returned as training schools which have no right to that designation. In Madras, the figures for 1891-92 include twelve sessional schools managed by Local Boards with 126 pupils, but these are merely classes for preparing teachers to pass the test examination for admission to a training school; in each class the course lasts only two or three months, so that the number of institutions and pupils on the 31st March is no index of the number of classes that have been at work in the course of the year. In 1887 these schools had not been established, but it is very doubtful whether all the training schools managed by the Boards or by private persons really deserved the name. In Bengal 5 aided training schools in 1887 and 4 in 1892 are said to be below the standard of the lowest grade of departmental normal schools, *i.e.*, of institutions intended for training teachers for primary schools. The guru-training classes of Bengal are not included in the table, but in Assam all but two of the institutions belong to this class.

Of the 116 institutions shown in the returns for 1891-92, only three are of the collegiate grade, the Madras Teachers' College, the Lahore Central Training College, and the Nagpur Training Institution; the first two were of the same grade in 1887, but the last was then only a vernacular school. All of these train teachers for secondary schools as well as colleges. In 1887 there were no separate training schools for teachers of high English schools, but in 1892 there were 8,—7 in Madras, and 1 in Burma. The institutions for training teachers of middle and primary schools cannot be completely separated in 1887, but in 1892 there were 49 of the former class and 25 of the latter. Of the former, 25 were in Madras, 8 in Bombay, 9 in Bengal, 4 in the North-Western Provinces, and 1 each in Burma, Assam, and Berar. The Bombay schools are nominally primary, but they correspond to the middle vernacular schools of other provinces. The schools of the primary grade are thus distributed:—Madras 6, Bengal 8, the Punjab 5, the Central Provinces 4, Assam 1, and Coorg 1. In several schools of the middle and primary grades, especially aided schools under missionary management, English is taught.

Of the 4,413 students in all the institutions included in the table, 584 were returned as learning English in 1892, against 422 in 1887. Instruction in a classical language was given to 1,615 students in 1886-87, and to 1,709 students in 1891-92. The following is the classification of the students in 1891-92 according to race or creed:—Europeans and Eurasians 2, both in the Madras Teachers' College; Native Christians 579, most of whom are found in the aided schools; Hindus 3,121; Muhammadans 509; "Others" 202, most of them belonging to the aboriginal tribes of Bengal and Assam, but including also 39 Burmese and Karens.

135. Training Schools for Mistresses.—Statistics regarding these schools are given in the next table:—

Training Schools for Mistresses, 1886-87 and 1891-92.

Province.	1886-87.										1891-92.									
	Maintained by the Department.		Maintained by Local and Municipal Boards.		Aided.		Unaided.		Total.		Managed by Government.		Managed by Local and Municipal Boards.		Aided.		Unaided.		Total.	
	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.
Madras	2	46	1	24	9	254	...	...	12	324	3	74	1	12	11	157	...	...	15	243
Bombay	2	77	...	...	...	...	2*	21	4	98	2	87	2	45	1	26	2*	21	7	179
Bengal	...	...	...	...	4	142	...	...	4	142	...	...	..	...	5	192	5	108	10	300
North-Western Provinces and Oudh.	...	...	2	6	...	...	...	...	2	6	...	...	1	2	...	...	...	...	1	2
Punjab	...	...	...	...	3	47	...	...	3	47	...	...	...	...	...	...	...	...	...	..
Central Provinces	1	27	...	...	...	...	...	...	1	27	1	19	...	...	...	...	...	...	1	19
Burma — Upper	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Burma — Lower	2	28	...	...	...	...	...	...	2	28	2	21	...	...	...	...	...	...	2	21
Assam	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	29	...	...	1	29
Coorg	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hyderabad Assigned Districts.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	.	...	...	...	...
Total	7	178	3	30	16	443	2*	21	28	672	8	201	4	59	18	404	7*	129	37	793

Several of the institutions included in the table are training schools only in name, being in reality primary or middle schools with a few adult pupils; such schools are not found in provinces where definite rules for normal schools have been published, as in Madras, or where schools maintained by the Department serve as models to institutions under private management, as in Bombay. The schools maintained by the Department increased from 7 to 8, a school for Muhammadan girls in Madras having been added to the list. Board schools are 4 against 3; 2 new schools have been opened in Bombay, while 1 small school in the North-Western Provinces has disappeared from the list. With the exception of 1 school in Bengal all the aided and unaided schools are under missionary management. The decrease in the number of pupils in aided schools is due to the exclusion from the Madras returns of all girls who do not intend to become teachers. The number of Europeans and Eurasians in the training schools has increased very much since the last Review was written, being now 53: the majority belong to the schools of Madras and Bombay. Of Native Christians there are 448: these form the majority in all provinces except Bombay and the Central Provinces, where most of the students are Hindus: the total number of this class is 237, of Muhammadans 45, all but one being found in Madras and Bombay; 10 are shown under the head of "Others." The proportion of students reading English is much larger than in schools for masters; the total number is 216, of whom 118 belong to Madras. There is no training school for mistresses of the collegiate grade in any province of India, but 2 girls were reading in the Madras Teachers' College in 1892. Madras has 8 schools of the upper secondary grade in which the teachers are trained for work in high English schools; all the other schools are of the middle or primary grade.

136. **Examinations for Teachers' Certificates.**—In all training schools certificates are given to the students who complete the course of training and pass the final examination. The number of teachers obtaining certificates each year cannot be ascertained from the tables; General Table VI divides the examinations into two grades only, but in most of the provinces there are several distinct standards of examination, and as these cannot be divided into upper and lower, the results of all the examinations are shown together, and they include not only final examinations for certificates of different grades, but also examinations to test the progress of the students at the end of each year of the course of training. Taking all the examinations of training schools for masters together, there were 1,917 passes in 1891-92, against 2,028 in 1886-87; the decrease is more than accounted for by a decrease of 444 in the North-Western Provinces, which is explained below. In 1886-87 the number of mistresses who passed the examinations was 213, of whom 168 belonged to Madras; in 1891-92 the total was only 177, the number of passes in Madras having fallen to 95.

137. Expenditure on Training Schools.—The following tables give statistics of expenditure for these institutions:—

Expenditure on Training Schools for Masters, 1886-87 and 1891-92.

PROVINCE.	1886-87.					1891-92.				
	From Provincial Revenues.		From Local and Municipal Funds.	From other sources.	TOTAL.	From Provincial Revenues.		From Local and Municipal Funds.	From other sources.	TOTAL.
	In schools under public management.	In aided schools.				In schools under public management.	In aided schools.			
	R	R	R	R	R	R	R	R	R	R
Madras	37,732	6,701	45,033	22,456	1,11,922	75,126	12,682	57,154	17,128	1,62,090
Bombay	36,933	4,000	15,872	14,652	71,457	61,079	2,000	29,933	18,965	1,11,977
Bengal	64,846	6,086	...	14,208	85,140	67,485	4,717	873	10,922	83,997
North-Western Provinces and Oudh	...	...	45,345	1,903	47,248	...	...	48,124	2,449	50,573
Punjab	22,982	3,000	19,541	4,451	49,974	57,250	...	330	...	57,580
Central Provinces	21,582	...	...	...	21,582	27,698	...	...	...	27,698
Burma — Upper	...	...	...	...	...	...	...	...	...	...
Burma — Lower	20,016	...	...	...	20,016	19,516	...	...	...	19,516
Assam	13,071	1,807	7,185	1,180	23,243	11,191	981	4,801	2,617	19,590
Coorg	1,355	...	25	...	1,380	1,272	...	...	...	1,272
Hyderabad Assigned Districts	9,640	...	...	...	9,640	10,853	...	...	...	10,853
TOTAL	2,28,157	21,594	1,33,001	58,850	4,41,602	3,31,470	20,380	1,41,215	52,081	5,45,146

Expenditure on Training Schools for Mistresses, 1886-87 and 1891-92.

Province.	1886-87.					1891-92.				
	From Provincial Revenues.		From Local and Municipal Funds.	From other sources.	Total.	From Provincial Revenues.		From Local and Municipal Funds.	From other sources.	Total.
	In schools under public management.	In aided schools.				In schools under public management.	In aided schools.			
	R	R	R	R	R	R	R	R	R	R
Madras	13,746	8,892	2,634	14,829	40,101	14,693	16,796	1,183	16 522	49,194
Bombay	21,999	...	3,015	6,227	31,241	19,551	1,646	10,703	12,183	44,083
Bengal	...	5,140	...	14,012	19,152	...	4,440	...	20,712	25,152
North-Western Provinces and Oudh	...	...	180	...	18	...	...	...	18	18
Punjab	...	5,344	1,200	1,911	8,455	...	...	...	...	...
Central Provinces	5,257	...	...	...	5,257	6,151	...	...	...	6,151
Upper Burma	...	...	...	...	...	...	...	...	...	...
Lower Burma	2,849	...	...	...	2,849	4,094	...	...	50	4,144
Assam	...	...	...	...	...	...	83	...	1,411	1,494
Coorg	...	...	...	...	...	...	...	...	...	...
Hyderabad Assigned Districts	...	...	...	...	...	...	...	...	...	...
Total	43,851	19,376	7,029	36,979	1,07,235	44,489	22,965	11,886	50,896	1,30,236

The total expenditure on training schools for masters has increased from ₹4,41,602 to ₹5,45,146, or by a little more than a lakh of rupees. Madras shows an increase of half a lakh, and Bombay one of ₹40,000; in the other provinces the changes are much smaller. The cost to provincial revenues has also increased by a lakh of rupees, the largest items being (in round numbers) ₹50,000 in Madras, ₹30 000 in the Punjab, and ₹20,000 in Bombay. The grants to aided schools form a very small proportion of the total Government expenditure, except in Madras, where they form about one-seventh. The local and municipal expenditure has increased by ₹8,214; in Madras the increase is about ₹12,000, but next year there will be a large decrease, since the control of most of the schools has been transferred from the Boards to Government. In Bombay the District Board expenditure has increased by ₹14,000, the whole expenditure being on account of departmental schools. In the Punjab the amount formerly contributed by District Boards for the maintenance of normal schools is now spent on primary education. In Madras Municipalities have paid ₹2,938 out of the total cost of schools formerly managed by Local Boards, and the Lahore Municipality has paid the salary of a gymnastic teacher; elsewhere municipal funds have not borne any part of the cost of training schools or masters. The expenditure from private sources has decreased by nearly ₹7,000: these sources are chiefly the revenues of Native States in Bombay and the subscriptions to the various missionary societies. Fees are very rarely charged, and amount to only ₹1,540.

A much smaller proportion of the total cost of training schools for mistresses is borne by public funds, since a larger share of the work is done by missionary societies. The total cost increased by ₹23,000, of which ₹14,000 came from private sources. The Government expenditure increased by about ₹4,000, and that from local and municipal funds by nearly ₹5,000. One school in Bombay is under municipal management, and another was originally established by a Municipality, but afterwards transferred to the District Board, though still aided by the Municipality. The schools aided by the Punjab Government in 1886-87 are not now classed as training schools.

138. Training Schools in Madras.—The most important institution of this class in the presidency is the Teachers' College at Saidapet, which was raised to the status of a college on its affiliation to the University in 1886. The college contains three departments: in the collegiate department graduates are trained with the object of obtaining the title of Licentiate in Teaching, which is conferred by the University; the secondary department contains a higher grade, to which are admitted students who have passed the First Arts Examination, and a lower grade, to which are admitted those who have passed the Upper Secondary or Matriculation Examination; the primary department is similarly divided. The test for admission to the higher grade is the lower secondary examination, while the primary examination is the test for the lower grade. In each of these sections the students undergo a different course of training, and receive certificates accordingly. There are two branch training schools connected with the college, one for Hindus, and the other for Muhammadans. The Saidapet high school is used as a practising school; a primary department with kindergarten classes was added to this school in 1888, when the college was removed from Madras to Saidapet. The course lasts twelve months; in 1889-90 it was lengthened to eighteen months, but was again reduced to the former length in 1891-92.

Provision has been made for teaching drawing, science, agriculture, and several other technical subjects; when the course was lengthened some of these technical subjects were made compulsory, but in 1891-92 they were transferred to the list of optional subjects. The collegiate class contained 31 graduates in 1891-92 against 7 in 1886-87: the number of students who had passed the

First Arts Examination rose from 9 to 29, and in the lower classes the number increased from 27 (excluding 5 military pupils) to 38.

In 1891-92 the total cost of the college was ₹32,981, the cost to provincial revenues being ₹31,964. Fee receipts amounted to only ₹359. The average net cost to Government of training each student amounted to ₹167 in the collegiate department and to ₹810 in the school department. This difference is not explained in the report, and it is not sufficiently accounted for by the difference in the number of students, the average roll number being 46 in the college and 30 in the school department.

Up to the end of 1890-91 the training of teachers was chiefly in the hands of the District Boards and missionary societies. The Government maintained the Teachers' College and its branches and two training schools in the Agency tracts; eight training schools belonged to the various missions, and all the rest were managed by the Boards. In the resolution on the report for that year the Local Government stated that the results were very unsatisfactory, and directed that full enquiries should be made into the cause of the unpopularity of the training schools. The causes assigned by the Director were the low rates of stipends to students, the want of sufficient encouragement to students after the completion of their training, and the unsatisfactory management of some of the Board training schools. In the report of the previous year the Director said: "I am inclined to think that no great or permanent improvement in respect of the staff, accommodation, furniture, library, and appliances in elementary normal schools will be made so long as they are under the direct management of District Boards. Teaching is a profession, and the training of those who are to engage in it requires to be under the immediate supervision and control of skilled professional men, that is, of the officers of the Educational Department." The result of the enquiry was that all but two of the training schools managed by Boards were transferred to the control of the Department. In the two excepted cases the training schools were connected with technical institutions, and the Boards were unwilling to make the transfer till sufficient time had been allowed to test the results of this combination. The transfer was effected in January 1892, but the reorganisation of the staff was not completed till March; but signs of improvement are already visible. "The status of the schools has improved owing to their being ranked as Government institutions. They are beginning to reap the advantages of better accommodation and proper appliances, and greater uniformity has been secured in the system of working them. The work in training schools is being confined to a greater extent then hitherto to instruction in methods of teaching and school management." In the 23 Board schools taken over by the Department the number of students on the rolls at the end of March was 824 against 577 in the preceding year,—a gain of 43 per cent. The change of management is not the only cause of the gain; the new rules regarding the recognition of schools have increased the demand for trained teachers, and inducements have been offered to teachers in departmental and Board schools to enter training schools by allowing them to draw a portion of their pay in addition to the usual stipends. Of the 38 training schools shown in the last returns 7 were upper secondary, 25 lower secondary, and 6 primary. Five years earlier the Teachers' College was the only institution of the upper secondary grade, and very few, if any, had advanced beyond the primary grade. Provision has been made for teaching drawing in all the training schools recently taken over by the Department.

The object of a sessional school is to give a preliminary training to village schoolmasters in general educational subjects prior to their admission to a training school. Village schoolmasters who have not passed the general education test named above are eligible for admission to training schools, but in that case a considerable part of the year allowed for training is spent in acquiring a

sufficient amount of general knowledge to pass this test, and less time can be devoted to the special instruction which is the chief object of the training. In the sessional school masters and candidates for masterships are assembled in some convenient and central locality for two or three months, and receive daily instruction from the inspecting schoolmaster in the subjects required for the examination for admission to a training school. In addition to this some instruction is given in school management and methods of teaching, and at the end of the course an examination is held by the Deputy Inspector. These schools were first started in a district on the west coast, the climate of which "favours the assembling of the teachers of primary schools at certain central places during the long monsoon. During the heavy rains, schools in out-of-the-way places are closed on account of the difficulty of getting the children to come out. The teachers are, therefore, able to assemble at some selected place for instruction. Touring being almost at a stand-still on account of the weather and the consequent closing of schools, inspecting schoolmasters have leisure to instruct the assembled village schoolmasters in the more important subjects connected with the working of elementary schools." In other parts of the Presidency the schools are kept open more continuously, and the inspecting schoolmasters are at work throughout the year; sessional schools, therefore, could not be efficiently supervised by them, except at the sacrifice of a part of their original duties,—the organisation and supervision of primary schools. To obviate this difficulty and to give a fair chance of success to the sessional schools, special teachers were appointed for them in 1891-92. Each of these teachers holds sessional schools in different parts of the district in succession, so that a much larger number of schools can be established, and as the schools can be brought nearer to the homes of the village schoolmasters, it is easier to induce them to attend. The new scheme is rather more costly than the original one, but the relief afforded to Local Boards by the transfer of training schools has enabled them to incur this additional expenditure. The annual returns show only the schools that were in existence on the 31st March, and hence are altogether worthless in the case of sessional schools; not a single school of this kind is shown in the returns for South Canara, the district in which they have been most successful. Some of the district reports give the whole number of classes held during the year and the expenditure incurred, but the figures are incomplete. The total number of classes mentioned is 49, with 519 pupils, or from 10 to 11 in each class. For 373 of these pupils the expenditure was R3,637, or nearly R10 for each, but the expenditure ranged from R4 to R14 in different districts. The total expenditure in all the schools was R7,234, all of which was paid from local funds, except R220 paid from provincial revenues on account of three schools intended for Mappillas. During the five years the percentage of teachers in primary schools who have passed no educational test has fallen from 75·6 to 63·5.

The number of students in training schools for mistresses has decreased from 324 to 243, or by 25 per cent. This is in a great measure due to the strict enforcement of the grant-in-aid rule that all students admitted must bind themselves to follow the profession of a teacher for at least two years after completing the course of training. The decrease has occurred in the aided schools managed by missionary societies, and is confined to Native Christians, who now number only 166 against 265 in 1886-87. The number of Government institutions has increased from 2 to 3, the Hobart School for Muhammadan girls in Madras, which was formerly aided, having been taken over by the Department. Only one Local Board manages a training school of its own: proposals have been made for its transfer to Government. Under the grant-in-aid code Boards are not responsible for female education, all grants to girls' schools being made from provincial revenues. Aided schools have increased from 9 to 11, all of them being supported by

missionary societies. During 1891-92 the number of trained teachers who obtained employment was 117, but it is stated that 56 of the teachers trained during the last three years had failed to obtain appointments. The demand for female teachers ought to be much greater than the present training schools can supply, for in 1888-89, the last year for which the statistics are given, there were nearly a thousand masters employed in girls' schools, the masters outnumbering the mistresses in primary schools. The Director says that these men should be gradually superseded by female teachers, "for there can be no question that, if female education is ever to become popular in this country, the agency employed must be composed almost wholly of women. If the large sum now spent annually on masters were devoted to mistresses, the demand for the latter class of teachers would increase enormously, and, with their more extensive employment, the number of girls receiving a high education would correspondingly grow. As the money value of higher education among women grows, so will education itself extend, for there is no such mighty stimulus to progress as the hope of gain,—a stimulus which works on the fathers and husbands as well as on the mothers and daughters." The proportion of students obtaining the higher grades of certificates is much higher among women than among men; a table given in the report for 1887-88 shows the total number of certificates obtained in each training school from its foundation; from this table it appears that one man out of 200 obtained a certificate above the lower primary grade, while one woman out of five did so. Of the 15 training schools for mistresses, only two are of the primary grade, five of the lower secondary, and eight of the upper secondary. Judging by the examinations passed, the staff is stronger in training schools for mistresses than in those for masters, and this, combined with the smaller number of students in each, renders them more expensive institutions. In 1891-92 the total cost was R49,194, or about R206 for each student on the rolls, to which provincial revenues contributed R31,489. The total cost of schools for masters, exclusive of the Teachers' College, was R1,29,109, and the cost to provincial revenues R55,844. The average cost of each student was probably about R100; it is difficult to ascertain the cost more accurately, because sessional schools are included in the tables.

In March 1892 the total strength of the teaching stuff of all the training schools for masters was 130, of whom 3 had been educated in Europe, 8 held the L. T. degree, 97 were trained teachers, 7 had obtained untrained teachers' certificates, 14 had passed a public examination, and only 6 were unpassed men. Of 44 teachers in training schools for mistresses, 5 had been educated in Europe, 30 held trained and 3 untrained teachers' certificates, 3 (all graduates) had passed a public examination, and only 3 were unpassed and uncertificated. Excluding the unpassed teachers and those educated in Europe, only 28 out of 121 men, and 4 out of 36 women, had passed an examination of a standard lower than the matriculation or upper secondary examination.

139. Training Schools in Bombay.—In Bombay no action has been taken upon the proposal made by the Acting Director in 1884-85 that training schools should be established under the management of Local Boards on a cheaper footing than those maintained by the Department. The latter have increased in number from 4 to 5, a new training college having been opened at Dhulia in Khandesh in 1889-90. Constant efforts have been made to improve the efficiency of these institutions, and the total expenditure upon them has risen from R52,811 in 1886-87 to R91,057 in 1891-92; the provincial expenditure has risen from R36,933 to R61,079, besides which there has been an expenditure of nearly a lakh of rupees on new buildings during the five years. The average cost for each student on the rolls has risen from R119 to R176, but as the course of instruction lasts three years, the total cost of training a single teacher exceeds R500. In 1886-87 only 43·7 per cent. of the headmasters of primary

schools under public management had gone through a course of training, but in 1891-92 the percentage had risen to 55·1, while the number of trained assistants had nearly doubled. The Christian Vernacular Education Society's school at Ahmednagar, the only aided school in the province, is also reported to be a very efficient institution, and the same is said of the two training schools in Native States. An examination of the students is held at the end of each of the three years of the course, and the number of passes was 534 in 1891-92 against 359 in 1886-87. The number of students who passed the final examination in the latter year is not stated; in 1886-87 it was 100. The demand for trained teachers is shown by the fact that in 1889-90 there were 300 candidates for admission to the Ahmedabad College, of whom 93 passed the test examination, but only 36 could be admitted.

Three new schools for mistresses have been opened. The Hyderabad Municipality started a school in 1888-89, which two years later was transferred to the management of the District Board. The Sisters of the Karachi Convent established a normal class in 1887-88, which received aid in the following year from both provincial and local revenues, and the same Sisters supervise the normal class opened by the Karachi Municipality about the same time. The other institutions of this class are two managed by the Department and two in Native States. The former are much more expensive than the colleges for men, but both the total expenditure and the cost of each student have decreased. In 1886-87 they cost R25,050, or R334 for each student on the rolls; five years later the total cost was R21,839, and the average cost R263, while the number of students had risen from 77 to 87. Taking all classes of institutions together, the average cost of training a man for one year was R168, and for training a woman R262.

The last report shows that 21 of the mistresses under training were the wives of teachers or of students of training colleges, but it is not clear whether the statement is exhaustive. In 1891-92 there were 24 Europeans and Eurasians, a class that was not represented in 1886-87; most, if not all, of these belong to the Karachi Convent class, which has supplied teachers for some of the other normal schools. Native Christians have increased in number from 9 to 17, but the greatest increase is under Hindus and Muhammadans; the number of the former has risen from 82 to 108, and of the latter from 3 to 28. In 1891-92 56 female students passed one or other of the annual examinations against 36 in 1886-87.

140. Training Schools in Bengal.—In Bengal three grades of training schools are recognised: in schools of the first grade the course lasts three years, and teachers who go through the full course are qualified to be headmasters of middle schools. In schools of the second grade the third year's course is not taught, and in third grade schools only the first year's course is taken; at the end of the course teachers are eligible for appointment to upper primary schools. A guru-training class is added to third-grade schools, and sometimes to the other grades, in which the upper primary course is taught. A school of the third grade is not retained permanently in one village: when all the gurus in the neighbourhood have been trained, it is removed to a different locality. The total number of Government schools fell from 16 to 15, and the attendance from 716 to 658. No changes occurred among the first-grade schools, which are 8 in number; there was one second-grade school in 1886-87, but it has recently been abolished, and the students transferred to a first-grade school in a neighbouring district. The number of third-grade schools (7) is unchanged. The large decrease in the number of students in aided schools is to a great extent nominal; only two of these institutions come up to the standard of departmental training schools, one ranking as first grade and one as third grade; in the others

instruction is given up to the standard of the upper primary or middle examination, while the latter examination is the test for admission to departmental schools; instruction is also given in the art of teaching, but in some cases only to a few of the pupils: one school, counted as a training school in 1886-87, and having 241 pupils, was shown as a middle English school the next year. Two of the aided schools, with 128 pupils, are intended for the aboriginal tribes of Chota Nagpore, and a third, with 32 pupils, supplies teachers to the hill schools in the Darjeeling district and in Sikkim. The certificates granted to teachers are of three grades, which correspond to the grades of the schools; the certificates of each grade are ranked as high, medium, or low, according to the number of marks obtained. In 1886-87 the number of certificates granted was 386, and in 1891-92 it was 447; the increase occurred in the higher grades, first-grade certificates being 142 against 103, and second-grade 139 against 119. The total expenditure on training schools maintained by Government rose from R65,600 to R69,765, and the expenditure from provincial funds from R64,846 to R67,485. The average cost of each student rose from R93 to R106. In 1891-92 the average cost was R111 in schools of the first grade, so that the cost of training a headmaster for a middle school is about R333; the schools of the third grade have a less expensive staff, and the average cost of training a teacher for an upper primary school is only R73. The expenditure in each of the first-grade schools has been increased by the appointment of a teacher of drawing; this subject has been made compulsory for all the students with a view to its ultimate introduction in middle schools.

Guru-training classes were established in 1885-86 for training teachers for lower primary schools. The headmasters of certain selected middle schools were authorised to open classes for instructing the gurus of neighbouring pathsalas in the subjects of the upper primary examination, and to give them an elementary knowledge of school method. The course of instruction was to last one year, and a reward of one rupee a month was given to the headmaster for each guru trained; but at first no special inducement was offered to the gurus to undergo this training. In 1886-87 there were 104 of these classes, containing 299 gurus, but the number rapidly rose till in 1889-90 there were 212 classes, containing 796 gurus; during the last two years there has been a slight decline, and in 1891-92 there were 174 classes and 756 pupils. The grant originally sanctioned was R6,000, which was afterwards raised to R9,000, but this amount has never been spent, the total expenditure in 1891-92 amounting to R7,554, to which district funds contributed R995. In 1890-91 rewards were offered to the gurus themselves, R10 to R15 to those who passed the middle vernacular examination, and R8 to R12 to those who passed the upper primary examination. Opinions differ very much regarding the value of these classes: one Inspector says the system "is not popular, gurus of existing schools do not flock to these classes; on the other hand, the Deputy Inspectors have to hunt for them and compel them to come in. It is not necessary. Though there may be some cases where pathsalas are held by decidedly illiterate and inefficient men, these cases are very rare. Though the average guru may not be a very brilliant person, he is capable of teaching his school the three R's, and I have been over and over again struck by the success obtained by gurus with very few attainments, who have themselves had hardly any schooling at all. Nor are the classes necessary for intending gurus. The rising type of a guru is almost always a man ready provided with an upper primary or even a middle vernacular certificate, and that is all we are proposing by this elaborate system of training classes to provide them with. The gurus in training are supposed to receive from the headmasters of the middle schools to which they are attached teaching out of school hours. Half the time, I believe, they do not receive

this special teaching, and it is an exceedingly difficult thing to enforce this teaching, or to prove that it is provided. To the system of offering prizes to gurus for passing the middle vernacular and upper primary scholarship examinations I have always been opposed." In some divisions the system is pronounced a success, and the Director says: "It would then seem that the system is not liked everywhere. Some of the divisions have not tried it at all and some of those that have tried it condemn it as useless and unworkable. The argument of Mr. Bellett, that the rising type of guru generally holds an upper primary, if not a middle vernacular, certificate, and is likely to supersede in the near future the illiterate guru now and then to be seen, has much force. But where a large number of pathsalas exist in limited areas, as in many places in the Presidency Division, and where there are easy means of communication between these schools and the middle schools round which they cluster, it is desirable to accelerate this elimination of the illiterate guru by training him properly. The practice of training *intending* gurus at public cost is risky, and should be discontinued where it exists. Men actually in charge of pathsalas should have the benefit of the system, and should be encouraged, on their passing by a standard, not only with the rewards sanctioned, but with fixed stipends in upper or lower primary schools. This will make the training attractive, and dispense with the necessity for compulsion. Again, gurus attending distant middle schools should be relieved from their ordinary duties for the time, and provided with stipends for their support." In the resolution on the report the Lieutenant-Governor accepted the view of the Director that these classes should be maintained, but was disposed to regard the cost of these gurus as disproportionate to their value. This opinion appears to have been based upon the scale of rewards, for the actual expenditure incurred amounted to only R10 for each guru.

The last report contains a statement (not quite complete) of the qualifications of teachers in upper primary schools; out of 4,427 teachers only 267 have passed the vernacular mastership or training school examination, and 171 the guru-training class examination; 1,230 teachers, or 28 per cent., have passed no examination and received no training; rather more than half have passed the middle scholarship examination, English or vernacular, and 40 have matriculated; the remainder have passed the lower or upper primary examination.

In most of the divisions the demand for trained teachers is much greater than the supply, and passed students have no difficulty in obtaining suitable appointments; in Eastern Bengal this is not the case, and the number of candidates for admission to the training schools has fallen off.

The number of training schools for mistresses has increased from 4 to 10, and the number of pupils from 142 to 300; besides those included in the table there is another institution of the same class, the Free Church Normal School, which is included in the list of high schools. With one exception all the schools are managed by missionary societies, and 222 of the pupils are Native Christians; one is a European or Eurasian, and the rest are Hindus. The expenditure on these schools is much lower than on those of Madras and Bombay, the cost of each pupil being only R82. The total cost of the 5 aided schools was R20,043, the grant from provincial revenues amounting to R4,440. The 5 unaided schools cost R5,109. There is no departmental test of the qualifications of the teachers trained in the schools, and it is probable that most of them are really primary or secondary schools, in which some of the older girls are pupil-teachers.

141. Training Schools in the North-Western Provinces.—In 1886-87 there were 10 training schools for masters supported by the Local Boards, but managed by the Department, and one aided mission school. The schools were

admittedly in an unsatisfactory condition, and the standard of examination too low and defective in its range of subjects. The great variations in the standard in different training schools, as shown by the percentage of passes, were pointed out in the last Review, and they were still more marked in 1886-87. In order to remedy this a central examination committee was appointed in the following year, and a year later it was determined to completely reorganise the system, and to reduce the number of schools in order to enable the Department to entertain a more efficient staff, and to undertake a more thorough training of the students. The number of schools was therefore reduced first to four and afterwards to three, the last being abolished in January 1892, though it was shown in the returns for 1891-92. Under the revised rules these schools prepare candidates for appointment as teachers in primary and middle vernacular schools. The students are divided into two classes, for each of which a different course of study is laid down, but the same period (two years) is allowed for both courses. After passing the final examination teachers must serve for two years with credit before obtaining permanent certificates. The middle examination is the preliminary test for admission to the upper class; for the lower class there is no fixed test. The course is very extensive, comprising, in addition to the vernacular (in which Persian, Nagari, and Roman characters must all be used), elementary Mathematics, Rent and Revenue Law, Sanitation, History, Geography, Surveying, Theory and Practice of Teaching, Physical Exercises, and, for the upper class only, Physical Science. All of these subjects are compulsory.

Some of the Inspectors are of opinion that the curriculum includes subjects which are superfluous, and impose a needless burden on the teachers and students. With regard to one school the Inspector, after remarking on the inadequacy of the stipends, says: "Then again the protracted period of study, extending over two years, the enormous amount of labour demanded of them under the new curriculum, and the fear of failing at the final examination, add to their troubles. The Assistant Inspectors and the masters of the school have assured me that, were it not for the fear of having all that they possess in the world sold up in order to meet the forfeiture of their engagements with the Government, most of them would run away." Although the practice of teaching is a part of the curriculum, there are no practising schools attached to the training schools. On this point the Director says: "The Directors of Public Instruction in this province do not seem to have attached much importance to having practising schools attached to *vernacular* normal schools; and (though it may seem a paradox to say so) I think they were right. The first and main object of vernacular normal schools in this province has been to ensure that every student sent out as a teacher shall be well grounded in all the subjects that he may be required to teach; and this is certainly one of the first objects for which training schools or colleges exist in any part of the world. To turn out men who shall be able to teach the entire village course, sometimes in both forms of the vernacular, on a salary of from R6 to R12 a month, is not an easy matter. The same man has often to teach three, four, or even five classes. He has to do this in the best way that he can; and the results of our village school teaching, however cheap and faulty its method may be, have been anything but nugatory. It is a fact that thousands of village students leave school every year who can read and write their mother tongue with facility and correctness, work out questions on the commercial rules of arithmetic, and solve elementary problems on the field-book, besides picking up a few rough ideas on history and geography. The important fact to be noticed is not how the result is obtained, but that it *is* obtained. To put a normal student through a scientific method of training, such as a practising school under a professional trainer is expected to impart, does not seem to be the first thing needed as a preparation for the primitive and less scientific work, which

the same man will afterwards have to do as a village teacher." These arguments would have much greater weight if they were urged against the inclusion in the course of any part of the Theory of Teaching. In the case mentioned one of the chief advantages of a practising school under a competent teacher would be that each student would learn how to teach three, four, or even five classes at a time, instead of being left to find this out by experiment, to the great detriment of the scholars entrusted to his charge. It is obvious that a practising school, to be of any real use, must be similar in its general character to the schools to which the students are afterwards to be appointed. Practising schools are attached to all the training schools of other provinces.

The expenditure on the 4 schools in 1891-92 was R48,015, against an expenditure of R44,947 on 10 schools in 1886-87, and the average cost of each student rose from R125 to R139. As the course lasts two years, the total cost of training a teacher is about double the amount stated. Practically the whole of the expenditure was met from local funds, there being no fees, and the income from other sources being only about one per cent. of the total. In the aided school which is intended for Native Christians the cost is rather less; it receives a grant of R600 from local funds.

No details are given regarding the one small school for mistresses shown in the table; the statement that the total expenditure was only R18 (from fees) is hardly intelligible. A normal school at Benares under the management of the Church Missionary Society is mentioned in the report for 1887-88, but it is shown in the returns as an ordinary secondary school, and is not mentioned in the later reports. There were in March, 1888, 100 girls on the rolls, the lower classes serving as a practising school for the senior girls.

In 1886 rules were issued restricting all appointments in schools under public management to teachers who had passed the normal school examination, with or without undergoing a course of training. Teachers whose capacity had been proved by long service were exempted, and received certificates of the grade requisite to qualify them to retain their posts. In consequence of these orders the number of candidates at the normal school examination was very large, and in three years 823 uncertificated teachers passed the examination, not including the students under training. At the end of 1887-88, out of 4,320 principal teachers in halkabandi schools, 3,084 had obtained certificates, 392 had passed the examination, but were still on probation, and 844, or rather less than 20 per cent., were unqualified. Out of 902 assistant teachers, 215, or 24 per cent., were uncertificated. Two years later the percentage of unqualified headmasters had fallen to 9, but that of unqualified assistants had risen to 58. In the middle vernacular schools under public management the percentage was lower in 1889-90; only 7 out of 340 headmasters were uncertificated, and only 31 per cent. of the assistants. These figures cannot of course be compared with those of other provinces, since the holders of the *pro formâ* certificates above alluded to are shown as certificated. The results of the examination of the uncertificated teachers furnish a proof of the extreme difficulty of the revised normal school curriculum: in each of the two years in which the examination was conducted by a central board of examiners under the old rules 43 per cent. of the candidates who were not under training succeeded in passing the examination, but in 1891-92 out of 10 candidates for the higher examination only one passed, and only 10 out of 128 of the candidates for the lower examination.

142. Training Schools in the Punjab.—In 1886-87 there were 6 training schools for masters, 5 of which were departmental institutions, though deriving a portion of their funds from local sources, and one was the Church Missionary Society's school at Amritsar referred to in the last Review as about to be closed

by order of the Home Committee of the Society; it ceased to appear in the returns in 1887-88. During 1886-87 the District Boards were relieved of their contributions to the support of training institutions, and from the following year the whole cost has been borne by Government, the small item of R330 shown in the table representing the salary of a gymnastic master paid by the Lahore Municipality. In 1891-92 a new normal school was opened at Mooltan, bringing the total number of institutions up to 6, the same number as in 1886-87. Five of these institutions are intended for training teachers for primary and zamindari schools; boys who have passed the middle school examination in the vernacular only are eligible for admission, and receive stipends usually of the value of R6 a month for one year, the period fixed for the course of training. There were formerly 170 of these stipends, but as the supply of teachers was not equal to the demand, the number was raised to 300 in 1887-88, and to 316 when the new school was opened. The full number of stipends, however, has not yet been taken up, and every year some of the students leave before the end of the session; in March 1892 there was 38 vacant stipends. The difficulty of passing the preliminary test, the middle school examination, is one cause of the deficiency in the number of candidates for admission to the normal schools. But the main cause is said to be "that a considerable number of the best students, whose means enable thom to join an Anglo-Vernacular school, including most of those who gain scholarships, enter on the study of English after passing the middle school examination in the vernacular; whilst the prospects open to the remainder, if they undergo a course of training in a normal school, are very inferior to those which obtain in other departments, such as the Revenue Department, in which promising students are largely employed." In order to attract more candidates the minimum age for admission was reduced from 18 to 17, the minimum salary of a trained assistant was raised from R6 to R8, and boys who had passed the middle school examination, but were too young to enter a normal school, were declared eligible for appointment as assistant teachers on a salary of R5 until they reached the age of 20; at that age the rules require them either to enter a normal school or to vacate their appointments. In order to secure candidates from some of the backward districts, stipends were offered to boys reading for the middle school examination, provided they were willing to enter into an arrangement to go through a course of training after passing that examination. These measures have to some extent reduced the difficulty, and at the beginning of the last session all but three of the stipends were taken up, though 35 boys failed to complete the course, Of the 278 students on the rolls at the end of 1891-92, 66 were being trained for employment in zamindari schools, and the remainder for ordinary primary schools.

The Central Training College, Lahore, trains teachers for secondary schools, both English and vernacular, and also for English primary schools and departments. Eventually none but graduates and those who have passed the University Intermediate Examination will be admitted to the senior English class; but at present there are not enough candidates of this class, and students who have gone through the prescribed course of study for the Intermediate Examination, but have not passed it, are also admitted. In this class there were 16 students in 1892 against 25 in 1887. The stipends given vary from R12 to R20, according to the examination passed. For the junior English class the preliminary test is the matriculation examination, and stipends of R10 are given: there were 27 students in 1892 against 14 in 1887. For the senior vernacular class the minimum qualification is the Entrance Examination of the Oriental Faculty, or the junior vernacular certificate, and stipends of the value of R8 to R12 are awarded: there were 36 students in 1892 against 31 in 1887. In 1891 the

Municipal Board school was amalgamated with the model school attached to the college, "and the Training College has now a practising school worthy of the object in view." This practising school teaches up to the matriculation standard, and arrangements have been made for the appointment of a trained headmaster from England. In 1891-92 the expenditure on the college was R23,994, which is equivalent to about R300 for each student. On the normal schools the expenditure was R33,586, or about R120 for each student. The expenditure in 1886-87 is not shown separately for the college and the schools; taking both together the total expenditure was R42,523, and the average R165; in 1891-92 the total was R57,580, and the average R158.

Three training schools for mistresses are shown in the returns for 1886-87; two of these were really primary schools with some adult pupils, and no attempt was made to give a professional training, though many of the women who attended them were afterwards employed as teachers: they were therefore normal schools only in name, and are now shown as ordinary schools. The third school was intended for training European girls for zenana mission work; it rarely contained more than three pupils, and often only two; in 1888-89 it was abolished. It is considered impracticable to maintain really efficient training schools for mistresses, "as a sufficient number of young women with the preliminary education necessary to enable them to enter on a course of technical instruction are not at present available." Training classes have, however, been opened in connection with a few schools on a system very similar to the pupil-teacher system, and stipends are given to the girls who join these classes. Very lenient rules have been adopted for the award of certificates; for the senior certificate the preliminary qualification is the middle examination, and the upper primary examination for the junior certificate. A girl who goes through a course of one year's training, but fails to pass the final examination, may still obtain a certificate, but of a lower grade, and in some cases certificates may be given without any training. During the last two years senior certificates have been given on the result of the final examination to six girls, and junior certificates to three girls; but only one girl has accepted employment out of her native city, and only two have gone beyond the schools in which they were educated or their branches. Regarding the difficulty of inducing girls to take employment the Inspectress writes: "Even in the case of branches of a Central School, there is difficulty. The school must be in the teacher's own house, which is usually the residence of numerous other members of the family. If a teacher dies, or is dismissed, it is not possible simply to instal a better qualified person in her place. It is found necessary to close the school and open another. The new teacher must have a house, with suitable rooms, in a *muhalla* in which she is sufficiently known and respected to collect pupils, for girls will not go far from their homes. And these difficulties are much greater in the case of teachers sent to a distance. First, they have to be induced to go, and even if the husband can be found employment, there is often an aged mother, or mother-in-law, who cannot be left behind, and who will not leave the place where she has spent her life."

143. Training Schools in the Central Provinces.—Although the table shows an increase of two schools, the only real change is the addition of a department to the Nagpur training school for training teachers of secondary schools. Besides the regular schools stipends are given to 10 Uriya pupil-teachers attached to some of the schools in the Uriya-speaking districts, and rewards to the teachers of those who succeed in passing the examination for teachers' certificates; these have been taken collectively as one institution in 1891-92, but not in 1886-87, the number of pupil-teachers being the same in both years. Rewards are also given to the teachers of 10 non-stipendiary pupil-teachers, but these have not been included in the total. The secondary department of the Nagpur school

was opened in 1889; up to the end of 1891-92 the course lasted only six months and two batches of teachers passed through the institution each year; the shortness of the course did not allow of any instruction being given in general subjects, and it was confined to the history and principles of education, school method, organisation, and discipline. In 1890 a European Superintendent was appointed by the Secretary of State to take charge of the institution. Up to the end of 1891-92 the total number of students who had gone through the course of training was 71, of whom 63 obtained certificates, two being graduates. The length of the course has recently been extended to one year, and the rules relating to the award of certificates have been revised. The rules for the higher grades of certificates have been described in the chapter on secondary education, and the rules regarding certificates of the primary grade are similar; they are divided into three classes, the only difference being in the general education test, which corresponds with one or other of the three standards of vernacular middle schools. The course of training in training schools of the primary grade formerly lasted two years, but it has been reduced to one year. There are three schools for training teachers of this grade, and in addition to the regular students many teachers of primary schools are sent to them for a course of instruction in drawing, the kindergarten method, manual training, drill, and gymnastics. Drawing is a part of the regular course of instruction, and the students are examined for certificates by the Bombay School of Art. Drawing classes for outsiders are also held in the training schools, for admission to which no fee is charged. Carpentry and modelling in clay and cardboard are now taught to all the students. Formerly carpentry was taught only to selected students in two of the schools, who were required to go through a four years' course of instruction, attending also the ordinary classes until they passed the certificate examination. The Nagpur Carpentry School was worked at a profit under this system, and the teacher received out of the profits a bonus for each student who succeeded in passing. A modification of the sessional school system of Madras has been adopted with the object of giving to teachers of primary schools a certain amount of training in subjects that have been added to the curriculum of those schools. Itinerant teachers have been employed to deliver a course of lectures at selected centres for the benefit of the teachers in the neighbourhood and to xamine these teachers at the end of the course.

The total cost of the training schools is borne by provincial revenues, and amounted to R27,698 in 1891-92 against R21,582 in 1886-87, and the cost of each scholar to R141 against R115. This increase of cost is almost entirely due to the more expensive staff now maintained in Nagpur, the cost of training a primary teacher there being R285 against R114 in Jubbulpore and R98 in Raipur. The cost of training a secondary school teacher is said to be R183, but apparently it was only half this amount, for each student was on the rolls half the year.

There is only one training school for mistresses, which is of the primary grade. It is located at Jubbulpore, and all the students come from the northern part of the province. A considerable proportion of the students are wives of men under training in the school for masters in the same station. The students are almost all Hindus. The total expenditure rose from R5,257 to R6,151, and the cost of each pupil from R188 to R280. For the southern, or Marathi-speaking, districts of the province, a training school is required. "An effort was made to start a training class in connection with the Girls' School, Nagpur, by appointing a competent mistress and giving scholarships to suitable candidates. Candidates were selected and arrangements made for a salary, but it was found impossible to secure a competent woman for the post of mistress. The scheme had, therefore, to be abandoned for the present." A proposal was afterwards

made to add a training class to a mission school in Nagpur, but this also fell through, as the mission was unable to undertake the work.

144. **Training Schools in Burma.**—In 1886-87 there were three schools for training teachers of primary schools, but the number of students had fallen from 167 to 92 during the year, mainly on account of the difficulty experienced in finding suitable employment for the students trained. In 1888-89 the Rangoon school was closed for financial reasons, and in each of the other schools the staff was reduced. In the following year an Anglo-Vernacular class was added to the Moulmein school, and in 1890-91 it was amalgamated with the Government High School, and a European Principal was sent out by the Secretary of State. The course of training for the primary or secondary certificate, English or vernacular, lasts three years, and that for the higher or collegiate certificate one year. The rules have recently been revised, and none of the students have yet completed the course prescribed under the new rules. Certificates are also given to persons who pass the final examinations of the training schools and then serve for two or three years with credit in a school inspected by the officers of the Department. Capitation grants are also given to pupil-teachers in approved schools, R30 at the end of the first year, R40 at the end of the second year, and R50 at the end of the third year, and an equal amount is given to the teacher by whom the pupil-teacher is trained. In Anglo-Vernacular schools each of the amounts is increased by R10. Sufficient funds have not been allotted by municipalities to make the pupil-teacher system very general, but many pupil-teachers have served voluntarily without pay. This system appears to have taken the place of the capitation grants referred to in the last Review. The last report does not give any statistics about pupil-teachers. The total cost of the training schools in 1886-87 was R20,016, but this amount does not include the stipends given to the students, which were shown as expenditure on primary education. Adding these stipends the cost was R36,821, or R275 for each scholar; in 1891-92 the total cost was R19,516, and the cost for each scholar R342; since the course lasts three years the total cost of training a teacher exceeds R1,000. The measures taken to induce the managers of schools to employ certificated teachers have been described in the chapter on primary education.

The system adopted in the two schools for mistresses is somewhat peculiar; the schools are both managed by the American Baptist Mission, but the normal teacher is appointed and paid by Government, though placed under the orders of the Superintendent of the school. A stipend of R4 a month is given to each student, and a grant is given to the school and to the teacher for every girl who obtains a certificate. The total expenditure, all of which was borne by provincial revenues, rose from R2,849 to R4,144, and the cost of a pupil from R105 to R153. A normal school for training European mistresses has recently been opened in connection with St. John's Convent, Rangoon, but it does not yet appear in the returns.

154 **Training Schools in other Provinces**—In Assam the table shows an increase from 13 to 16 in the number of schools, and a decrease from 382 to 352 in the number of scholars. A large number of the schools, however, are merely guru training classes, and if these are excluded the number of normal schools has decreased from 3 to 2, and the scholars from 119 to 67. The normal schools prepare candidates for the vernacular mastership examination, which is on the same lines as in Bengal, the same grades of certificates being given. The school at Gauhati is the only first-grade normal school teaching the full course of three years. The Shillong school has been amalgamated with the high school, only the art of teaching being taught separately to the normal students.

From these two institutions 4 students passed the final examination in 1891-92, 9 the second grade, and 6 the third grade: in 1886-87 the passes were 5, 12, and 20, respectively. The aided school is a missionary school in the Garo Hills, containing a small number of students under training, but not according to the normal school standards; the number shown in the table includes the children of all the classes. In 1886-87 the average cost of a student in each of the two real normal schools was about R110; in 1891-92 it was R91 at Gauhati and R171 at Shillong. The high rate in the latter school is due to an unequal division of the expenditure between the normal school and the high school. These figures must be multiplied by three to get the whole cost of training a teacher.

The table shows one aided school for mistresses, but the Director is doubtful whether it ought not to be classed as a lower primary school. The Shillong school is a mixed one, and girls will eventually be sent out as teachers, but last year none of them were ready for examination.

Every teacher in a secondary school under public or private management is required to pass one or other of the annual examinations of the training schools as a condition of permanent appointment, and Sub-Inspectors are under the same necessity; they may also be called upon to undergo a course of training at a training college, if one is started in Bengal.

The Merkara normal school is the only training institution in Coorg; the students are as a rule teachers of primary schools who have passed the upper primary examination; they remain in the institution three years, and are prepared for the middle examination. The average cost was R104 in 1886-87 and R141 in 1891-92, the increase being due to a reduction in the number of students.

In Berar there is one training school, which contained 73 students in March 1892 against 76 in March 1887; there were also 12 pupil-teachers under training in other schools against 20 in 1887. There were also four men attached to one of the high schools for training as teachers in secondary schools. This makes a total of 89 students under training, but the table shows 94, the remaining five not being accounted for in the report. The upper primary standard is the test for admission to the training school, the course in which lasts two years, so that the final standard is apparently equivalent to the highest standard reached in primary schools; in Berar, as in Bombay, primary schools contain two classes above the upper primary standard. For pupil-teachers the course lasts only one year, the examination at the end of the course being the first year's examination of the training school. All of the students sent out of the training school during the last two years obtained appointments, and most of the pupil-teachers. In 1891-92 the total expenditure was R10,853, and the annual cost of each student R121; in 1886-87 the amounts were R9,640 and R103: the whole of the expenditure was borne by provincial revenues. The expenditure on the training school alone is not shown in the reports.

146. Recommendations of the Commission as to Training Schools.—The facts stated in the preceding paragraphs may now be considered with reference to the recommendations of the Commission. These recommendations relate to three classes of normal schools, those intended for the training of teachers for (1) primary schools, (2) secondary schools, and (3) girls' schools. The most important recommendation relating to the first class of schools is "That the first charges in provincial funds assigned for primary education be the cost of its direction and inspection and the provision of adequate normal schools" (IV. 16). The recommendation which precedes this may be regarded as an explanation of the term "adequate;" it is to the effect that normal schools

should be established in each Inspector's circle; the Commission attached "considerable importance to the personal interest which each Inspector should take in the normal school attached to his charge," and also considered it "very desirable that the village schoolmaster should be a local resident and not a foreigner." In the Resolution on the Report special reference was made to the necessity of establishing training schools for training teachers of primary schools in Bengal. The Local Government had already made provision for training teachers for middle vernacular schools, but considered it impracticable with the limited funds available for primary education to establish a sufficient number of training schools to meet the wants of 50,000 schools. A cheaper method of training teachers was therefore considered necessary, and guru-training classes were established, in which from 700 to 800 teachers of primary schools are taught annually at a very small expense to Government. This number is too small to make much impression on the proportion of trained to untrained teachers, but its smallness is due in a great measure to the form in which aid is given to the schools. The payment by results system does not offer much inducement to teachers to go through a course of training. In almost every case some expense must be incurred by the teacher while under training, and he has no assurance that he will be recouped for this expense by any increase in the amount of the grant given to the school. In Madras an inducement is offered by the salary-results system, under which the amount of the salary grant depends upon the certificate held by the teacher. The training of teachers has always taken a more prominent place in the educational system of Madras than in that of other provinces, and the changes in the rules made during the last five years will tend to rapidly diminish the number of uncertificated teachers employed in all classes of schools. In Bombay the primary schools are feeders of the secondary schools, and a more extensive course of training is considered necessary for the teachers; the training schools are therefore more expensive institutions, and their number is smaller than in Madras. As the course lasts three years, the annual outturn of trained teachers must be less than 300, which is barely sufficient to fill up the vacancies that must occur annually in 9,000 schools. This seems to show the necessity for cheaper training schools, which was pointed out by Mr. Lee-Warner in 1884-85. The proportion of trained to untrained teachers in Board schools has, however, increased considerably since 1887. In the North-Western Provinces there were only 1,133 uncertificated teachers in the primary schools under public management in 1890. The number of teachers who have since qualified for certificates is very small, owing to the difficulty of the examination, but the course is about to be revised, which will probably increase the number of certificates given, and enable the training schools to meet the demand for teachers. In the Punjab the sufficiency of the present supply of training schools is shown by the fact that enough students cannot yet be obtained to take up all the stipends that are offered. This number has been nearly doubled during the last five years. In the Central Provinces the number of certificates gained by vernacular teachers in 1891-92 was 148, and the number of primary schools for boys 1,493; the number of untrained teachers in the schools is not stated, but if the outturn of the training schools is maintained, the number ought to be rapidly reduced. In schools under public management the promotion of teachers depends upon their possession of certificates. In Burma the training of teachers is carried on to a great extent in ordinary schools, liberal grants being given for every teacher trained; the regular normal schools are too small to supply teachers to fill up vacancies as they occur. The extent of the provision for training teachers may be judged from the fact that from the beginning of 1896 no grants will be given to schools in which certificated teachers are not employed. The training schools of Assam are sufficient to supply teachers for

the middle and upper primary schools, and guru-training classes have been started of the same class as those in Bengal. In Coorg there are only 73 primary schools, and one small training school is maintained to supply them with teachers. In Berar also a training school is kept up, and to supply teachers of the lower grades a system of pupil-teachers' stipends has been established, but it has not been very successful.

147. Special Requirements for Teachers in Secondary Schools.—The Report of the Commission (paragraph 272) shows that differences of opinion existed regarding the value of normal training for teachers of secondary schools, and these differences of opinion are reflected in the recommendations. The views of one party are shown in the recommendation "that normal schools, Government or aided, for teachers of secondary schools be encouraged," while the opposite view is taken in the subsequent recommendation (VIII. 1) "That teachers in non-Government institutions be allowed to present themselves for examination for any grade of certificate required by the grant-in-aid rules without being compelled to attend a normal school." The only definite recommendation on this subject (V. 6) appears to be a compromise between the extreme views, "That an examination in the principles and practice of teaching be instituted, success in which should hereafter be a condition of permanent employment as a teacher in any secondary school, Government or aided." The question was not specially dealt with in the Resolution on the Report of the Commission, but the views of the Government of India were very clearly expressed in a letter to all Local Governments on the subject of discipline and moral training in December 1887, from which the following extract is taken:—"No money is better spent than that allotted to the support of efficient training schools and colleges for teachers, and money is not well spent if granted to schools presided over by untrained and incompetent teachers in which discipline and moral training are relegated to a secondary place. The Governor-General in Council is of opinion that, in the truest interests of education, the cost of providing thoroughly good training schools and colleges for teachers of English as well as of vernacular schools should be regarded as a first charge in the educational grant; and that any province which is now unprovided with institutions suitable for the effectual training of the various classes of teachers required should take measures by retrenchment, if necessary, to establish the requisite training institutions." At that time Madras and the Punjab were the only provinces in which any provision had been made for training teachers for English schools. In Bengal, the North-Western Provinces, and Assam there were normal schools for training masters for middle vernacular schools, and the same may be said of Bombay, though the schools corresponding to the middle vernacular schools of other provinces are classed as primary. Since that time training schools for secondary teachers have been established in the Central Provinces and Burma: in the former the Nagpur normal school has been converted into a training institution for teachers of colleges and the higher grades of schools, and a European Principal has been appointed. In Burma the Moulmein normal school has been converted into an Anglo-Vernacular school, and amalgamated with the high school, both institutions being now under the charge of a Principal specially selected for the post by the Secretary of State. The number of students is small at present, but some teachers are trained in other schools as pupil-teachers. In Berar a small class of students has been attached to one of the high schools to receive instruction in the principles and practice of teaching. The Bombay Government declared its intention of establishing similar classes in the chief Government high schools of each division, but no mention of such classes is made in the reports. The Government of Bengal pointed out that a scheme for training all the teachers of secondary schools and colleges could be carried

out only at very great expense, since the number of teachers in Government and aided institutions was not less than 10,000. The supply of fairly competent teachers was said to be redundant, and it was feared that if additional training were insisted upon, and the period at which a youth could earn a maintenance thereby postponed, it would be necessary either to raise the pay of schoolmasters or to accept an inferior class of men. The Local Government thought one training college might be started experimentally at a cost of about R10,000 a year, but preferred the alternative course of instituting an examination in the principles and practice of teaching. In the North-Western Provinces the Director was called upon to submit proposals for the establishment, at a moderate cost, of a central institution for the training of masters for English schools, but owing to want of funds nothing further has been done. The Assam Government considered that the slender revenues of the province would not admit of the establishment of a training school for English teachers, but was willing to send selected students to be trained at schools established in Bengal. In Coorg there are only three secondary schools, so that a training school is unnecessary; arrangements have been made for sending students to the Madras Teachers' College for training. The final orders on the subject are contained in the following extract from the Resolution of the 17th August 1889:—

"The Governor-General in Council desires to give emphatic expression to his view that it is of little use to spend money on schools if the teachers are either inefficient or unable to maintain discipline or a healthy moral tone in their schools. The chief qualifications required in a schoolmaster are capacity to maintain discipline and capacity to convey instruction. The first of these qualifications implies firmness and ability to govern, the capacity of inspiring enthusiasm in his pupils and securing their co-operation, and earnestness, sympathy and insight into character. In the opinion of the Governor-General in Council the possession of these qualities cannot be tested merely by an examination such as is suggested by the Government of Bengal. The capacity to convey instruction comes more within the range of an Examiner's power to test. But this is the lower of the two sets of qualifications which go to make up the model schoolmaster; and an examination is an admittedly inferior way of ascertaining a teacher's ability to convey instruction, his ability to simplify a subject, or his skill to fix the attention and draw out the intelligence of his class. For these reasons the Governor General in Council considers it impossible to secure good instructors without such a process of selection and preparation as normal school training gives, and is unable to regard the adoption of examination in the art of teaching as an adequate substitute for good normal schools. His Excellency in Council therefore deems it essential that each Local Government should accept the responsibility of providing means for training teachers for each grade of schools—primary, middle, and high—as a first charge on the educational grant. Should any Local Government find itself unable to provide the requisite system of training from the funds already available, it should arrange either to increase its funds from local sources, or, following the recommendation of the Education Commission in paragraph 543 of its Report, to throw more largely on private enterprise the duty of providing higher education, and thereby set free the money required for training institutions.

"The proposal to attach normal classes to the larger high schools, though not as satisfactory as the establishment of training schools themselves, is nevertheless worthy of consideration, if it be arranged that such classes shall be attached to those high schools only which are under the care of specially selected and competent masters. As the number of good teachers educated at training institutions increases, it should gradually be made a condition that no uncertificated teacher should be appointed to a Government aided school or college, and the universities should be invited to make the employment of certificated teachers in unaided schools and colleges a condition of affiliation. Until the supply of training institutions is fully developed, local arrangements should be made whereby provisional certificates of competency to teachers possessing certain educational qualifications may be granted after a sufficient period of probation has been passed, subject to confirmation by the Government Inspector."

One argument in favour of the establishment of at least one training college in each of the larger provinces has not been very prominently brought

forward. If the normal schools for teachers of primary and middle schools are to be anything more than schools for giving instruction in the subjects which the students will eventually be called upon to teach, it is necessary that all the members of the tuitional staff of these institutions should be men who have gone through a course of training in a institution of higher grade. Without a central training college this is impossible, the expense of imported teachers being prohibitive.

148. **Training of Teachers for Girls' Schools.**—Very little progress has been made in carrying out the recommendations of the Commission (X. 17-22) regarding the training of female teachers. In the whole of India the number of girls who have advanced beyond the primary stage of instruction is a little over 7,000; taking into consideration the fact that the majority of these girls are prevented by caste prejudices from becoming teachers, and that many others belong to the upper classes of society, who do not require to work for their living, it is evident that the supply of girls whose education is sufficient to qualify them for appointment as teachers is altogether insufficient for the 5,700 schools shown in the returns. This is the main, if not the sole, reason for the general failure to materially increase the number of trained teachers for girls' schools. The rates of aid offered are in most cases much more liberal than those offered to schools for the training of men, but very few Hindus and Muhammadans are willing to take employment as teachers.

Over 60 per cent. of the girls under training are Christians, nearly all of whom are found in the aided schools. In Madras and Bombay efficient schools for training mistresses have been established under both public and private management; in the former special inducements are offered to Hindu and Muhammadan girls to enter training schools by the provision of an allowance for a guardian in addition to the stipend given to the student; in Bengal several schools have been opened by missionary societies, but their standard is below that of the departmental schools, and there is no examination in the technical part of their instruction. In the Central Provinces one school is maintained by the Department; and in Burma two mission schools have normal classes attached to them under teachers appointed by Government. Stipendiary pupil-teacherships (X. 17) appear to have been introduced only in Burma, as well as rewards for girls who pass the examination for teachers' certificates. Regarding the former, the Madras Director writes: "The fact that Government girls' schools are at present mostly elementary, and the additional fact that girls pass out of such schools at a very tender age, before they have acquired either the physical or the mental qualifications, render it next to impossible to carry out this recommendation (X. 17) as far as native girls' schools are concerned. Moreover, I am doubtful whether the pupil-teacher system has proved such a success in Great Britain as to make its introduction into the scholastic system of this country desirable." In Bombay and the Central Provinces some progress has been made in inducing the wives of schoolmasters to qualify for appointment as teachers.

CHAPTER VIII.

TECHNICAL EDUCATION.

149. Plan of the Chapter.—In order to give a clear view of the present state of technical education in India, it is necessary to go back to the beginning of the year 1886-87, instead of commencing with the following year, as in other chapters of this Review. In April 1886 the colleges and schools of law, medicine, and engineering, and the schools of art were practically the only institutions in India for imparting technical instruction; there were, it is true, a few industrial schools, but these were described as mere workshops for the production of inferior articles at extravagant cost, and useless for all purposes of practical training. In 1884 the Government of India had enforced the necessity of making the course of study in high schools more practical than it was, and had recognised the desirability of encouraging technical instruction; but no practical steps had been taken in any province except Madras, and there the scheme was not sanctioned till the beginning of 1886-87. Shortly after the publication of this scheme a Note on Technical Education was drawn up by Mr. (now Sir Antony) MacDonnell at the command of the Viceroy, and this will be taken as the starting point in the following paragraphs. In this Note, and also in the Resolution on Sir Alfred Croft's Review, technical education is divided into two branches, preparatory and special; the preparatory branch has no special connection with any particular industry or profession, but serves as a preliminary training for all industries and professions; it should not, therefore, be considered as something separate and apart from ordinary general education, but should find its place in the primary and secondary schools of the country. The special form of technical education is defined in the Resolution as "the preparation of a man to take part in producing efficiently some special article of commercial demand. It is the cultivation of the intelligence, ingenuity, taste, observation, and manipulative skill of those employed in industrial production, so that they may produce more efficiently. And thus technical education of the special, as contradistinguished from the preparatory, kind is an auxiliary of manufacture and industrial capital." In his report on the existing arts and industries in Bengal, Mr. Collin divides technical education into three branches:

(1) Technical education as opposed to literary, and which is designed to ground a boy in such knowledge as is necessary for the pursuit of an industrial career.

(2) Technical education of a special character which presupposes the existence of some knowledge of a profession or of some training in a particular industry, and which is designed to improve such knowledge or training by the aid of scientific research and better methods.

(3) Technical education in the sense of teaching a trade or profession.

The first branch is identical with the preparatory form of technical education mentioned in the Resolution. At first sight the second and third branches appear to be both included under the definition of special technical education, but the following passage from the same Resolution shows that only the second branch is really included:—"The field of operation being thus defined, it would seem necessary to begin with industries which are in some degree centralised, which are growing into importance with the new growth of trade and manufactures, and which are capable of improvement by the application of scientific principles to materials and processes. At the centre of such industries a technical school will be useful. To the great railway workshops and factories may, with undoubtedly great advantage, be attached schools of

drawing and design, and of practical instruction in the scientific principles of the handicrafts there carried on." This implies that the instruction given in the technical school is not intended to supplant the training given in the workshop or factory, but to be an addition to it. Teaching a trade or profession is not generally recognised as a part of technical education proper, and the English Technical Instruction Act expressly states that technical instruction does "not include teaching the practice of any trade or industry or employment." In India, however, there are very few private agencies for professional training, and some industries, especially those involving applications of art, are not likely to be introduced into the country unless special schools are established for teaching them, so that all three branches of the subject must be considered.

150. **Mr. MacDonnell's Note.**—The Note is divided into four parts: the first part gives a brief history of technical education in India, ending with an extract from the Resolution of the Government of India relating to the bifurcation of studies in high schools recommended by the Education Commission. The second part describes the condition of technical education in the various provinces of India at the end of 1884-85, and gives statistics of the technical schools and colleges then in existence. The third part describes the steps taken by the various Local Governments to give effect to the orders of the Government of India in the Resolution of October 1884, enforcing the necessity of improvement in the matter of practical and industrial training. The fourth part ends with a series of eighteen recommendations, which may be divided into three groups—(1) those relating to colleges and schools of Law and Medicine, the course of instruction in which is more or less under University control; (2) those relating to the preparatory form of technical education; and (3) recommendations regarding technical education proper. The first group comprises the following recommendations:—

(1) that enquiries be made whether it is not desirable that greater facilities for the study of Law and Medicine be provided in mofussil Colleges in Madras and Bombay;

(2) that the teaching staff of the Agra Medical School be strengthened and the status of the school raised to an equality with that of Lahore;

(3) that a Medical School be established at Rangoon;

(4) that the instruction in all Medical Schools be made more practical than at present.

The following recommendations belong to the second group:—

(9) that instruction in drawing be made compulsory in all schools the teachers of which are competent to instruct in drawing;

(10) that competency to teach drawing be made as soon as possible an essential qualification in all teachers in Middle and High Schools;

(11) that instruction in introductory science (the particular subjects or branches to be prescribed by the Education Department) be made compulsory in Middle and High Schools, similar provision being made as in the preceding head regarding teachers;

(12) that examinations in Middle Schools include drawing and elementary science as compulsory subjects; and that a considerable latitude as to optional subjects of a practical character be allowed as in the Madras syllabus;

(13) that the High School course be of two kinds—(*a*) literary, (*b*) practical or "modern," as recommended by the Education Commission;

(17) that the University establish two Entrance examinations—one literary, as at present; one "modern," as recommended by the Education

Commission. The "modern" examination to include optional subjects to meet the requirements of Division A and Division B of paragraph 82 of this note.*

* Explained below.

The last group includes the following recommendations:—

(5) that facilities for practical training be provided at the Roorkee and Madras Civil Engineering Colleges;

(6) that an Art School on the Lahore plan be established at Agra;

(7) that opportunity be taken where possible to establish Agricultural and Veterinary Schools or classes in High Schools;

(8) that more attention be paid to the teaching of land surveying; and that Civil Courts and other official bodies be required to employ certificated students of such schools in preference to non-certificated surveyors;

(14) that to Middle or High Schools there be attached a Technical Branch whenever enquiry brings to light the demand for Technical training in any industry in the locality;

(15) that such Technical Branch be an integral part of the Provincial educational system, subject to the control of the Education Department, and leading up to an examination to be instituted by the University;

(16) that, subject to the general supervision and control of the Department of Education, such Technical Schools be under the direction as to curriculum, etc., of the Central Art College (which should be affiliated to the University) or Engineering College of the Province, as the case may be;

(18) that funds be provided for the promotion of the foregoing scheme by State grants when possible; and by appropriating some of the allotments now made to the support of higher English education, wherever this can be done without detriment to the interests of that education. That Municipalities and Local Boards who are chargeable with the support of education be also required to allot funds for Technical Schools, where the establishment of such be considered desirable.

The recommendations (3 and 4) regarding Medical Schools may be considered as more properly belonging to the last group, since these institutions do not teach a course laid down by the Universities, but it will be more convenient to collect together all the information regarding medical education in India. The fifth recommendation might have been included in the first group, since the colleges named are affiliated institutions; but in neither of them is the course of study entirely governed by University regulations, while the part assigned to engineering colleges in recommendation 16 renders it desirable to consider them as forming part of the general system of technical education.

The reference in recommendation 17 is to Mr. Pedler's classification of the various industries and professions which may be made the subject of technical education* into the following divisions:—

* See paragraph 227 of the last Review.

A.—Applications of Science.	C.—Agriculture.
B.—Applications of Arts.	D.—Commerce.

Mr. MacDonnell's Note professes to deal only with the first two divisions, but the third is slightly touched upon in the seventh recommendation.

In July 1886 all Local Governments and Administrations were invited to express their opinions upon the recommendations contained in the Note, and to state what steps would be taken to give effect to them. The following paragraphs will contain a brief summary of the replies submitted, the three groups of recommendations being taken separately.

151. Law Colleges and Schools.—The only recommendation relating to Law was that greater facilities should be afforded for the study of Law in mofussil colleges in Madras and Bombay; in Bengal alone were the facilities for the study of Law considered to be adequate, but no suggestions were made regarding other provinces. The following table shows the number of Law colleges and schools in 1887 and 1892, and the number of students in them; the figures for 1887 differ from those used by Mr. MacDonnell only in the addition of two unaided colleges in Bengal and one unaided school in Assam :—

Attendance in Law Colleges and Schools.

Province.	1886-87.				1891-92.			
	Colleges	Pupils.	Schools.	Pupils.	Colleges.	Pupils	Schools.	Pupils.
Madras	1	182	...	...	1	360	...	...
Bombay	2	249	...	...	4	230	...	..
Bengal	10	1,078	...	...	12	563	...	...
North-Western Provinces	3	117	...	...	7	612	...	...
Punjab	1	71	...	...	1	85	...	..
Central Provinces	...	...	...	...	2	82	...	...
Assam	...	...	1	19	...	...	2	39
TOTAL	17	1,697	1	19	27	1,932	2	39

152. Action taken upon the Recommendation.—The Government of Madras stated that in 1885 the Director of Public Instruction had submitted to the High Court a scheme for the improvement of the study of Law, involving the establishment of law classes in four of the mofussil Government colleges. "But the High Court, with the exception of the late Chief Justice, was not in favour of this idea, believing that the instruction thus afforded would only be of a second-rate quality, and that it would be better to develop and improve the instruction provided in Madras town." The Law Faculty of the University expressed the opinion that the number of law students resident in any mofussil town would be insufficient for the maintenance of efficient Law classes, and that other students would be just as ready to go to Madras to complete their studies as to a town at a much shorter distance from their homes. "Whatever may be the demand for legal education in the mofussil, it is also important to note the fact that the number of candidates who pass the first and second grade Pleaders' tests every year is in excess of the requirements of the public service, and that graduates in law are spreading over the mofussil in increased numbers every year, and are, in the ordinary course of progress, pushing inferior practitioners into positions commensurate with their educational status and legal acquirements. This is a state of things which is favourable to the steady growth and development of a superior class of legal practitioners," and it is one which the Faculty "would be sorry to disturb by the opening of weak law classes in the two first-grade mofussil colleges." This view was accepted by the Local Government, and in 1891 the law classes of the Presidency College were abolished, and a separate Law College established, the staff consisting of a Principal; two Professors, and three Assistant Professors. The rules of the college provide for regular class teaching, and half-yearly examinations of the students, besides increasing the number of lectures to be delivered. In 1887-88 the University extended the course of study for the B.L. examination from two years to three, but gave the candidates the option of attending lectures for one year before passing the B.A. examination. This is the main cause of the large increase in the number of students, from 182 to 360, but the results of the University examinations show that there

is also a real increase in the number of Law students. Of the 360 students in 1892, 310 were reading for the University degree and 50 for qualifying certificates.

The reply of the Bombay Government does not touch upon the recommendations regarding Law and Medicine, but in consequence of a change in the University regulations law classes have been opened in the aided colleges at Ahmedabad and Karachi. Under the old rules candidates for the LL.B. examination were required to attend lectures for three years, but we re not allowed to appear at the examination until two years after graduating in Arts; in 1890 the rules were made more precise; candidates were required to attend for one year after passing the Previous Examination, and for two years after the B A. Examination. At the same time a preliminary examination was instituted in Roman Law and General Jurisprudence, the subjects of the first year's lectures, and candidates were allowed to combine this examination with that for the B.A. degree, by taking these subjects in place of the optional branch. This concession necessitated the establishment of law classes teaching at least the first year's course in some of the mofussil colleges, and three such classes are now in existence,—one in the Deccan College, and the two above mentioned. None of these have been affiliated to the University beyond the First LL.B. standard, so that all candidates for Law degrees must attend lectures in Bombay for two years. The total number of students in the law classes of the province shows a slight decrease, but the number of students returned as reading for the degree has risen from 54 to 89.

The Calcutta University has reduced the course of study from three years to two, and withdrawn the privilege of attending lectures before passing the B.A. examination, the changes being exactly the opposite of those made by the Madras University. A similar change was also made by the High Court in the rules for the Pleadership examination, for which many of the students of the Law colleges are preparing, and these changes have caused the reduction of the number of students from 1,078 to 563 in spite of an increase of two in the number of colleges. Six of the Law classes are attached to Government Arts colleges in the mofussil, the other six are unaided, three being in Calcutta, and three in the mofussil. In his Note Mr. MacDonnell appears to set too high a value upon the instruction given in these classes: as a matter of fact there is little, if any real teaching; the students rely solely upon their own unaided efforts to pass the University examination, and attend lectures merely for the purpose of obtaining the certificate of attendance which is required by the University. If this certificate were not required every student would at once leave the colleges. To make the teaching of Law a reality in Bengal, it would be necessary to establish a college similar to that of Madras, and to make attendance at a much larger number of lectures compulsory. At present candidates are required to attend only 24 out of 36 lectures in each of eight branches of Law.

In the North-Western Provinces the number of Law classes and of students has increased very rapidly since the establishment of the local University, but it is doubtful to what extent this is the cause of the increase, for the Principal of one of the Government colleges says: "The very great majority of our Law students have no intention or desire of appearing at the University examination or at the High Court examinations, and it is not clear to me with what precise object they pay the fees and attend the law lectures for two years." Allahabad is the only University in India that confers degrees in Law upon persons who have not graduated in Arts; candidates are required to attend lectures for two years after passing the Intermediate Examination, but in order to prevent the wholesale immigration from other provinces of candidates who have failed at the B.A. examination, no examination of any other University lower than the B.A. is recognised as qualifying for admission to a Law college.

The Lahore Law School is shown in the provincial returns as a school, but as it is under the direct management of the University, and prepares candidates for the Licence in Law, it is here shown as a college. In 1891-92 the University was empowered to grant the degrees of LL.B. and LL.D., but no examinations have yet been held. The rules for the examination for the Licence have been revised, and the B.A. has been substituted for the Intermediate Examination as an initial qualification. Persons who are not eligible for the Licence may be admitted to the examination, and obtain certificates, and either English or Urdu may be chosen as the medium of examination. Of the 85 students on the rolls in 1892, 72 were studying through the medium of English, and 13 through the medium of Urdu; in all the other Universities English is the medium both of instruction and of examination.

In the Central Provinces the Law classes attached to the Jubbulpore Government College and the Morris College, Nagpur, are both classed as schools, though the former is affiliated to the Allahabad University, and the latter to the Calcutta University, and both have succeeded in passing candidates at the degree examinations; in the above table they are classed as colleges. The Morris College contained a Law class in 1887, but it was not shown in the returns.

The two Law schools of Assam prepare candidates for the Pleadership examination.

In the last annual report for Burma the Director states that a Law class has been opened in the Rangoon College, but it is not shown in the returns.

153. Expenditure in Law Colleges.—The aggregate cost of all the Law classes during the year 1891-92 amounted to R99,596, of which the students themselves paid R93,543 in the shape of fees. Local funds contributed only R34, and municipal funds R659, while the expenditure from provincial revenues was more than balanced by the receipts from fees in Government institutions, the net profit to Government amounting to R3,303. The Madras Law College, though maintained on a more expensive scale than any other institution of this class in India, showed a clear profit of R6,353, the income from fees being R30,324, and the expenditure R23,971. The fee rate is R100 a year, which is much above the rate charged in other provinces; the fee for admission to the B.L. examination, R50, is also higher than in Bombay and Calcutta, where it is only R30. The college has as yet no building of its own; the Local Government has expressed its approval of the erection of a building, but funds have not yet been allotted for the purpose. In the Bombay Law School the expenditure was R11,072; the income from fees was R12,165, which, added to an endowment bringing in R2,028 annually, left a balance of R3,121; the average amount paid in fees by each scholar was nearly R55. The Poona Law class contained an average of only 19 students, so that the fees were insufficient to cover the total expenditure, the net cost to Government being R611. In the Government Law colleges of Bengal the lecturers receive the fees of the students, up to a limit of R2,400 a year; in the Patna College the fees exceeded the limit, and returned a profit of R2,537 to Government. In the six Government colleges the average fee paid by each student was R77, and in the unaided colleges in the mofussil the rate is nearly as high, being about R67; in Calcutta owing to the larger number of students, and the competition of three unaided colleges, the fees are reduced to R3 a month. In the North-Western Provinces the Law departments of the two Government colleges are entirely supported by the fees, which amounted to R7,863, or R40 for each student. The three aided colleges received R3,382 from provincial revenues, and R609 from municipal funds; the total expenditure for each scholar was higher than in Government institutions, though the average amount paid in fees was only R18; in two unaided Law classes the average fee was R22. The total cost of the Lahore

Law School was R6,509, of which Government paid R2,829, and the students R3,116, or an average of R52. In the Central Provinces fees were not charged for the whole year in the Jubbulpore College, as the affiliation had not been completed, and hence the Government expenditure on the two Law classes together, R1,886, is about double what it should have been. The Law class of the Morris College is a Government institution, though the college itself is under private management; the Law Lecturer is appointed by Government, and half of the fees are credited to the college and half to Government. The two Law schools of Assam are self-supporting, the average amount of the fees being R69.

154. Results of University Examinations in Law.—The total number of persons who obtained the degree of Bachelor of Law, or the Licence in Law, of the Punjab University, during the last five years is shown below:—

Madras	210
Bombay	139
Bengal	855
North-Western Provinces	50
Punjab	28
Central Provinces	11
TOTAL	1,293

In Madras one candidate obtained the degree of Master of Laws; in Bombay there is no degree beyond the LL.B., but merely an examination for Honours, which no candidate has attempted; in the Calcutta University the degree of D.L. is given, but none of the candidates were successful; in the Punjab University the degrees of LL. B. and LL.D. were not instituted till 1891-92, and no examinations have been held. The number of graduates in Law appears to be increasing in every province, except perhaps in Bengal; in this province there has been a large decrease during the last two years, but this is mainly due to the fact that during this period the date of the examination was changed, and new rules were introduced.

155. Medical Colleges and Schools.—The usual statistics regarding these institutions are given in the following table:—

Medical Colleges and Schools.

PROVINCE.	1886-87.				1891-92.			
	COLLEGES.		SCHOOLS.		COLLEGES.		SCHOOLS.	
	Institutions.	Pupils.	Institutions.	Pupils.	Institutions.	Pupils.	Institutions.	Pupils.
Madras	1	138	4	204	1	(c) 157	3	347
Bombay	1	(a) 276	3	123	1	(d) 222	4	216
Bengal	1	(b) 172	9	793	1	(e) 255	9	1,035
North-Western Provinces and Oudh	...	...	1	125	...	...	2	212
Punjab	1	68	1	143	1	144	1	178
Central Provinces	...	...	...	...	...	...	...	...
Upper Burma	...	...	...	...	...	...	...	...
Lower Burma	...	...	...	...	...	...	...	...
Assam	...	...	...	...	...	...	...	...
Coorg	...	...	...	...	...	...	...	...
Hyderabad Assigned Districts	...	...	...	...	...	...	...	...
TOTAL	4	654	18	1,388	4	778	19	1,988

(a) Two hundred and thirty one were University students and 45 belonged to the female certificate and military classes.
(b) Military and other non-university pupils have not been separately shown.
(c) One hundred and thirty-seven belonged to the University department and 20 were casual students.
(d) One hundred and seventy belonged to the University department and 52 to the female certificate and military classes.
(e) One hundred and fifty-six belonged to the University and 99 to the female certificate and military classes.

The recommendations regarding them were that additional schools should be established in the provinces of Madras and Bombay, and also a school in Rangoon, that the Agra Medical School should be raised to the status of a college, and that in all schools the instruction should be made more practical.—

156. Action taken upon the Recommendations.—Regarding the first recommendation the Surgeon-General of Madras was of opinion that it was undesirable to increase the number of mofussil medical schools, because the existing schools were able fully to meet the demand for hospital assistants, and also because the training given in them was necessarily of a lower order than that given in the presidency town, the teaching staff being weaker, and the smaller size of the hospitals affording inferior facilities for clinical instruction. This view was adopted by the Local Government, though the Medical Faculty of the University recommended the establishment of three additional schools for training hospital assistants. Of the five schools included in the table given on page 8 of the Note, the Board school at Madura was closed in 1886-87, and in the following year the auxiliary school of the Madras Medical College was abolished, the students receiving their theoretical instruction in the parent institution. There remain, therefore, only two mofussil schools,—a Board school at Nellore with 19 students, and a school at Tanjore with 27 students. The school department of the Madras College has, however, increased from 63 students to 301. With regard to the nature of the instruction given, the Surgeon-General was of opinion that the training given to the students in the wards of the clinical hospitals was as practical as it could possibly be, but he agreed with the Principal of the Medical College that it would be desirable to illustrate the lectures on Physiology, Pathology, and Hygiene by practical demonstrations to a larger extent; but to carry this out it would be necessary to have a properly equipped laboratory for each subject. A hygienic laboratory was considered to be the most urgently needed, and in 1891-92 such a laboratory was added to the college, and a medical graduate appointed as Assistant to the Professor of Hygiene.

The Madras University also has recognised the importance of Hygiene, and in 1888-89 instituted a new degree,—Licentiate in Sanitary Science. The examination is open only to holders of other medical degrees and registered medical practitioners, and comprises General Pathology, Hygiene, and Analytical Chemistry. No candidate has yet appeared at the examination. In 1890-91 some additions were made to the list of subjects for the L.M.S., and M.B. and C.M. examinations, but the new rules have not yet come into operation, and in 1891-92 the First Arts examination was made the preliminary qualification for the L.M.S. degree in place of the Matriculation examination.

The increase in the number of students in the Medical College is due to the admission of casual students; the number of regular students reading for degrees has remained almost stationary; 6 of the students are girls against 5 in 1887. A considerable number of the students proceed to Europe to complete their medical education, and during the last five years two female students, one of them a Native Christian, have in this way obtained British diplomas.

Bombay.—As already stated, the question of medical education is not dealt with in the letters from the Bombay Government on the scheme of technical education, but the necessity for more practical training in the Grant Medical College is fully recognised in the following extract from the report of the Principal for the year 1887-88:—"Medical education in Europe is annually becoming more technical and elaborate, and there is not, I imagine, any school of size equal to the Bombay College without aids we still need. Last year I

referred to the want of tutors in medicine, surgery, and midwifery, and this defect has been again apparent in the frequent inability of senior students to attain fair standards of knowledge from want of adequate practice in elementary procedures. Further, that a college so large should remain without a biological laboratory, and not have at least one teacher engaged in modern methods of demonstration of practical physiology, pathology, and therapeutics may seem an anomaly and yet be true. For the building and apparatus funds are essential, and for instructors adequate leisure and encouragement must be offered. It is hardly to be expected that the body of medical officers in India (from whom the staff of Professors is drawn) can always offer a wide enough field of selection; and that the old rooms and few instruments of the Grant College can prove equal to growing requirements is at least equally unlikely. Thus, whilst no effort will be spared to put to best use the men and materials available, it is earnestly hoped that adequate means will be offered by Government towards enabling this College to advance with its compeers elsewhere. Lastly, I may allude to the great desirability of larger obstetric wards in which students could more conveniently pursue their practical lessons in midwifery." A laboratory for medical research, the gift of Mr. Framji Dinshaw Petit, was built in 1890-91, at a cost of R60,000, besides R15,000 for fittings and instruments, and a year earlier a scheme for reorganising and strengthening the tutorial staff was sanctioned by Government. A student's library has also been added to the college. In the last report the Principal states that the number of lectures to the senior students has been reduced in order to give more time for practical work.

The number of male students reading for degrees shows a large decrease, from 227 to 151. Regarding the loss of 46 students in 1888-89 the Director says: "The medical profession appears to be overstocked in the city of Bombay; and the Principal so far from regretting the falling-off in his numbers has hopes of inducing the University to make a further reduction by raising the standard of admission to the college." These hopes were not realised, and many of the candidates for admission are rejected on account of an insufficient knowledge of English; and a similar complaint is made in the Punjab, where also the matriculation examination is the preliminary qualification required by the University. The number of female students in the University classes has increased from 4 to 19. The classes not reading for University degrees include a certificated practitioners' class for women, with 7 students against 16 in 1887, and 45 military pupils against 29 in 1887; the latter class was closed in 1888, but re-opened in 1890-91 in order to supply vacancies in the warrant officers' list. Formerly the students of this class received a preliminary training in a military hospital? but now boys enter the class direct from school; this change of system is said to have proved very beneficial, the boys now admitted being in every way superior to the old military apprentices. The addition of one to the list of schools is due to the opening of a midwifery school at Hyderabad in 1890-91, which is maintained partly from the Countess of Dufferin's Fund and partly by a grant of R500 a year from the District Boards; in March 1892 there were 7 students. In the other medical schools there are 41 civil medical pupils, who are bound to serve for seven years as hospital assistants in the Civil Medical Department, and have had two years' previous training in a civil hospital; 53 stipendiary pupils, who have had no previous training, but are bound to serve for five years in the Civil or Military Department, and 37 native pupils, of whom 25 are military pupils; the rest are either maintained by Native States or pay their own fees.

Bengal.—The steps taken to render the instruction given in the schools more practical are described in paragraph 71 of Mr. MacDonnell's Note. In 1890-91 Hygiene was added to the list of subjects, and a proposal

was made to extend the course from three years to four; "but it met with opposition on the ground that the candidates trained under the present curriculum were generally equal to the ordinary duties required of them, and that to lengthen the course would mean to increase the cost and diminish the supply. As a compromise, it was ordered that monthly examinations should in future be held, and that only those candidates who attained a certain standard of proficiency at the periodical examinations should be admitted to the annual examinations for promotion." Although the schools are vernacular institutions, an elementary knowledge of English was made compulsory on all candidates for admission. In the female certificate class of the Medical College the Entrance examination has been made the admission test, and the course of study has been extended from three years to four. The only change made by the University is the division of the 1st L.M.S. and 1st M.B. examinations into two parts, the scientific subjects of the course being taken at the end of the second year, and the professional subjects at the end of the third year.

The number of students in the Medical College has increased from 172 to 255; the latter number includes 156 matriculated students reading for University degrees, of whom 5 are women, 82 military pupils, and 17 women in the female certificate class. Of the 9 schools, 4 are Government institutions, the number of students in which has increased from 526 to 597; the other 5 are unaided schools, in 4 of which the homœopathic system of medicine is taught to 268 students. The most important of the unaided institutions is the Calcutta Medical School, which had 170 students in March 1892. "It is perhaps the only institution of the kind in India wholly maintained by voluntary effort. It was originally started in 1887, and had only eight pupils to begin with. The qualifications for admission and the course of study are very much the same as those laid down for the Campbell Medical School. Some difficulty is experienced in teaching the practice of medicine and surgery for want of a hospital, which the promoters of the institution are trying their best soon to establish The institution has, however, a charitable dispensary attached to it, and the students attend the Mayo and the Chandni Hospitals for clinical instruction. A large number of pupils who have read up to the Entrance standard now seek for admission to the Campbell Medical School; and as the authorities cannot accordingly make room for those who have passed the middle examinations, the existence of an unaided school like the Calcutta Medical School has proved of immense benefit to the latter class of students,—a fact which is borne out by its growing popularity. It may be hoped that the managers will be soon in a position to present pupils at the Campbell School examinations and enable them to be placed on a footing of equality with the civil hospital assistants."

North-Western Provinces.—The question of raising the Agra Medical School to the status of a college was referred to the Senate of the Allahabad University for consideration, and at the end of 1888 that body passed a resolution "practically to the effect that at present any steps to establish a college for training medical practitioners would be premature." The Inspector-General of Civil Hospitals also objected to the proposal to teach up to a higher standard than that of the hospital assistant class; he stated that only one or two Assistant Surgeons were required annually, while the Government send five students every year to Lahore, two with stipends and three with free studentships.

This view was adopted by the Local Government, and the question of making the instruction more practical does not appear to have been discussed. The Agra Medical School is not under the control of the Education

Department, and no information regarding it is given in the annual reports. The returns show that a second medical school has heen established since 1887, also under Government management, but it is not mentioned in the reports. The Allahabad University has not yet been empowered to grant medical degrees.

Punjab.—In the Punjab a Committee was appointed to consider the whole question of technical education; but the Sub-Committee on professional occupations had no recommendatons to offer to the General Committee regarding medical education.

In 1886-87 the Punjab University was authorised to grant the degrees of Bachelor and Doctor of Medicine, and regulations were drawn up by the Senate, almost identical with those then in force in the Calcutta University. The preliminary qualification is the Intermediate examination, while the Entrance examination remains the test for candidates for the L.M.S. diploma. In consequence of the extension of the functions of the college, the staff was strengthened by the appointment of two additional Professors to teach the subjects of Anatomy and Physiology, and another Professor was appointed in 1891-92, in consequence of a large increase in the number of students. In the college, or assistant surgeon, classes the increase is from 68 to 144, while in the vernacular school classes the number has risen from 143 to 178. The number of female students in the college department has risen from 3 to 11, but in the school department it has fallen from 16 to 10.

In the Central Provinces 10 scholarships are offered annually to the students who pass the matriculation examination; they are tenable for three years in the Patna Medical School, and for such period as the holder may spend in a local hospital before proceeding to Patna.

Burma.—In the report for 1891-92 the Director states that proposals have been submitted for the opening of a medical school in Rangoon for training hospital assistants, but no action had been taken when the resolution on the report was written. To provide for the training of assistant surgeons and hospital assistants two grades of scholarships have been created; the first of the value of R60 a month for five years, tenable in the Calcutta Medical College, the holders being required to qualify for the diploma of L.M.S. In 1891-92 the number of these scholarship holders was 5, of whom 4 were women. The hospital assistant scholarships are tenable for one year in a hospital in Burma, and for three years in the school department of the Madras Medical College; for the first year the stipend is R20 a month, and for the remainder of the period R40 a month, Government also paying tuition fees. Last year there were 13 scholars in Madras, and 4 undergoing the preliminary hospital training in Burma. Classes for sick-nursing and midwifery are attached to the Dufferin Maternity Hospital.

In Assam there are no medical schools, but four scholarships, tenable for three years in the Dacca Medical School, are awarded annually. The students who complete the course and pass the final examination have the first claim on vacant appointments in the hospital assistant service.

In Berar there are no medical schools and no scholarships specially reserved for students of medicine, but boys who obtain scholarships on the result of the matriculation examination have the option of entering the Grant Medical College, Bombay. In 1892 one Berar scholar was studying in this college.

157. Expenditure in Medical Colleges and Schools.—The following table gives the total expenditure from different sources in each province on institutions for medical education :—

Province.	1886-87.				1891-92.			
	Provincial Revenues.	Local and Municipal Funds.	Fees.	Total.	Provincial Revenues.	Local and Municipal Funds.	Fees.	Total.
	R	R	R	R	R	R	R	R
Madras . .	31,000	35,550	18,244	94,011	1,11,254	10,184	22,175	1,49,060
Bombay . .	31,774	...	22,742	56,545	33,886	1,497	21,911	59,483
Bengal . .	2,30,826	...	27,996	2,59,	2,69,468	...	33,006	3,04,903
North-Western Provinces and Oudh.	14,822	...	...	14,822	21,162	...	...	24,126
Punjab . .	67,097	...	...	67,097	64,762	6,552	2,512	74,084
Total .	3,75,519	35,550	68,982	4,91,914	5,00,532	18,233	79,604	6,11,656

It is impossible to draw from these figures any conclusions regarding the comparative cost of institutions in different provinces; in all the Government colleges and schools most of the members of the teaching staff have duties to perform in the attached hospitals, and their salaries are divided in different proportions between the two departments. In the Calcutta Medical College the whole of the salaries of the Professors and Demonstrators are shown as expenditure on the college, and this brings the total expenditure up to a little over two lakhs of rupees; in the Grant Medical College the salaries of the Professors and Tutors are at least as high as in Calcutta, but the total expenditure is said to be only R21,647, all of which is met from fees and endowments.

In Madras the whole of the Government expenditure is incurred in the Medical College and its attached school, the other two schools being supported from local and municipal funds. In the college the fees average R117 for each scholar; there are only 5 free-studentships, which have taken the place of 5 Government scholarships, which have been abolished; all the other students pay fees. In the school department the fees average only R10. In the Grant College the average is R100, but one-fifth of the students belong to the military class and pay no fees. In the Government schools two-thirds of the pupils are civil or military apprentices reading free, and this reduces the average fee to R11. In the Calcutta Medical College the yearly fee is R70, with an extra fee for certain courses of lectures, but those who are not matriculated pay no fees; and of these, 10 are admitted free each year, so that the average fee is only R44. In the Government schools the average is R24, and in the unaided schools R11. In the medical schools of the North-Western Provinces no fees are charged, and the same is true of the school department of the Lahore College; in the college department a fee of R2 a month was made compulsory on all students entering the college in 1887.

158. Results of University Examinations in Medicine.—The number of candidates who have obtained University degrees or licences in medicine during the last five years is shown below :—

Total passes in the Final Medical Examinations from 1887-88 to 1891-92.

Universities.	M.D.		M.B.		L.M.S.	
	Men.	Women.	Men.	Women.	Men.	Women.
Madras	...	...	8	1	61	2
Bombay	2	...	...	...	130	3
Bengal	3	...	33	2	69	1
Punjab	...	...	3	...	38	2
Total	5	...	44	3	298	8

The total number of medical graduates in Bengal is less than the sum of the numbers in the different columns, for many candidates appear at both the L.M.S. and M.B. examinations. Taking the figures for 1886-87 and 1891-92, there is a decrease in the number of medical graduates in every province; the decrease is most marked in Bombay, where there were only 44 in 1891-92 against 60 in 1886-87. The degree of M.B. is not conferred by the Bombay University; and in the Punjab the first examination for this degree was held in 1891.

159. Second Group of Recommendations—Preparatory Technical Education.—These recommendations may now be classified according to the grade of school to which they refer. Primary schools are left out of consideration altogether, since the teachers are not generally competent to teach additional subjects, though in Bombay, where a large proportion of the teachers have gone through a course of training, it might be possible to introduce drawing into the curriculum. In middle schools drawing and elementary science should be made compulsory subjects wherever suitable teachers are available, and steps should be taken to make all the teachers in these schools qualify in these subjects. As a necessary corollary of these recommendations, drawing and science should be compulsory subjects in the middle school examination, to which should be added a number of optional subjects of a practical character, such as had already been introduced into the Madras middle school examination. The latter part of this recommendation may be said to belong to the third group, and even, if all the Madras subjects are included, to go beyond the limits of technical education proper, and encourage the establishment of schools for teaching trades. All the recommendations regarding middle schools apply also to high schools; but in the high department it is recommended that there should be two courses of study, leading up to two different Entrance examinations, one literary and the other practical or "modern," the latter to contain a number of optional subjects connected with the applications of science and art to various industries.

The following paragraphs will show the action taken upon these recommendations in the different provinces; the special recommendations regarding high schools will be very briefly dealt with, since full details of the alternative courses proposed and introduced have been given in paragraphs 98—104 of the

chapter on secondary education. The other points have also been incidentally referred to in previous chapters, but it is desirable to repeat the information there given in a more connected form.

160. Action taken in Madras.—Drawing has not been made compulsory n either primary or secondary schools; in native schools aided on the results system it is an optional subject from the third standard upwards, and in European schools from the fifth standard, that is, in the middle department only. In the primary school and lower secondary examinations it is an optional subject, and even in the upper secondary examination, the final test of the "modern" side of high schools, it holds the same place. On this subject the Director wrote in 1886: "To pass an order making drawing compulsory in all schools, the teachers of which are competent to give instruction in it, would not have much immediate effect, the number of schools having teachers possessing this qualification being very small. I attach the greatest importance to drawing, but I am not prepared to recommend that it should be ruled to be an essential qualification in a secondary school teacher, or that it should be made compulsory even in schools having teachers competent to instruct in it. Were it to be made compulsory in some schools and optional in others, the former would require to be relieved of some of the already existing compulsory subjects; and this could not be done. Moreover, I must repeat the remark already made that the course of study in high schools is determined by the University matriculation examination. Were a 'modern' side instituted, drawing would, as a matter of course, be compulsory in the 'modern' school. But as long as high schools have merely the matriculation examination in view, I consider it hopeless to attempt introducing any real reform in the matter of drawing. In the middle school it is different. The scheme of examination recognizes drawing, and here I think something might be done, though the pressure on pupils is already too great to permit of drawing being added to the list of compulsory subjects; while the lack of competent teachers would render it impossible to demand it of all schools. In the struggle for recognition in our school curricula, which at the present day is so fierce, many subjects to which considerable importance is attached must give place to subjects of yet greater importance. The recommendations (9) and (10) in paragraph 92 are to my mind too sweeping. In classes below the high school an improvement in drawing would soon be effected if in results-grant schools a higher rate of grant were given for proficiency in drawing, and in salary-grant schools a higher grant were given to teachers possessing a certificate of fitness to teach drawing." The Director also stated that though instruction in drawing was given in two of the training institutions, yet it was doubtful whether many of the teachers turned out by those institutions could be regarded as competent to teach the subject. Arrangements have now been made for teaching drawing in all the departmental training schools. The suggestion that higher grants should be given for drawing has not been carried out with respect to results schools, but under the scheme for higher examinations in Science, Art, Industries, and Commerce, special inducements are offered to teachers to qualify in drawing.

Elementary science (Physics and Chemistry) is included in the matriculation examination, and is therefore compulsory in all high schools. In middle schools no branch of science is compulsory, but several branches are included among the optional subjects of the lower secondary examination; and agriculture, hygiene, and an elementary knowledge of animals and plants with reference to agriculture, and of substances used in arts and manufactures, are included in the primary school examination. Very little difficulty is said to be experienced in obtaining an adequate supply of competent teachers of science in consequence of the large number of young men who graduate taking physical science as their

optional subject, but this statement probably refers only to teachers in high schools. The practical subjects referred to by Mr. MacDonnell now form the elementary stage of the science and art examinations, but these examinations can be combined with the lower secondary, which has taken the place of the middle school examination. The nature of the science and art examinations will be explained later.

The following extract from a letter from the Registrar of the University shows the attitude of that body towards the proposed scheme for a bifurcation of studies in high schools:—"With regard to the important question of the bifurcation of studies at a stage lower than the matriculation standard, which is one of the suggestions contained in the note, the University can only interest itself in a proposal of this nature if both courses lead up to higher University examinations, and eventually to degrees. The Education Commission, in recommending the introduction of a course of study alternative with, but different in character from, that pursued for the matriculation examination, considered that this course should *terminate* with an examination of a standard about equal to the matriculation, and never contemplated it being or becoming preparatory to a University curriculum. With a course of this nature, the University can scarcely be expected to concern itself." The Committee of the Victoria Technical Institute objected very strongly to the proposal to allow the University to conduct the alternative examination, and so obtain the control of technical education in the province, and, as already stated elsewhere, the Local Government expressed similar views.

161. Action taken in Bombay.—Drawing has not been made compulsory in any class of schools, but it is taught in all Government high schools and training colleges, and in many schools under private management. In all schools and colleges rewards are offered to teachers holding second and third grade certificates of the Bombay School of Art, if not less than ten of their pupils obtain the first grade certificate, and prizes are given for every drawing of the first or second grade which is marked "excellent." In aided schools grants are also given for each exercise of the first or second grade in which a pupil passes, the amount of the grant varying with the marks awarded. In 1887 the number of students in the drawing classes included in the returns was 1,600, besides 264 students of the School of Art. Five years later the number had risen to 3,666, but this does not represent the whole number of scholars learning drawing in schools for general education, which is said to be 11,199. In 1886-87 the number of candidates who obtained certificates in drawing was 274, all but one being of the first grade; in 1891-92 the number of first grade certificates was 469, of second grade certificates 71, and two candidates passed higher examinations. About 80 schools in Bombay sent up candidates to the examinations, and nearly 50 schools in other provinces, chiefly the Central Provinces.

The inclusion of elementary mechanics, chemistry, and astronomy in the matriculation examination renders these subjects compulsory in all high schools. In all Government high schools the Sanitary Primer is a compulsory subject in Standard V, and mensuration is an optional subject in the same standard. The following is an extract from a Resolution of the Local Government dated the 15th September 1886:—"All Government high schools have for some years past been supplied with scientific apparatus for the teaching of elementary physics and chemistry to the senior pupils. His Excellency in Council is of opinion that this instruction has been useful so far as it extended, but that the time has now arrived for a thorough reorganisation of the science instruction in high schools with a view to secure the following objects—(*a*) to make it both more thorough and more practical; (*b*) to secure a nucleus of real scientific work,

sound as far as it goes, in every high school, so as to discoveer the boys who have a special aptitude in that direction and pass them on to the science and art colleges. These objects Government consider can best be attained by the appointment of a competent instructor in science to the staff of every high school, by the allotment of a certain number of scholarships, the minimum being two, for proficiency in natural science, and by making it the duty of the science teacher to instruct the scholarship-holders and other pupils specially studying science in the practical manipulation of the apparatus." The annual reports do not show to what extent these orders have been carried out.

No branch of elementary science is included in the middle standards of Anglo-vernacular schools, but in the highest class of primary schools the Sanitary Primer and mensuration are included. In the training colleges elementary science is a compulsory subject, while drawing, agriculture, and industrial art are optional subjects.

The Local Government hoped that the measures above referred to would be sufficient to secure all the advantages to be obtained from a bifurcation of studies in high schools without the attendant inconvenience and expense. Two years later an examination alternative to the University matriculation examination was decided upon, but in two respects it differs from the examination contemplated in the 17th recommendation; it is not an Entrance examination, since it does not lead up to any of the higher examinations of the University, and it is not necessarily practical or 'modern.' The list of subjects (see paragraph 99) includes several that belong to the 'modern' side, but none of them are compulsory, and it is quite possible for schools to so select the optional subjects as to avoid teaching the small amount of science that is included in the matriculation course. The subjects taken up by the candidates are not shown either in the provincial report or in the University Calendar, so that it is impossible to determine whether the new examination is more or less "modern" than the matriculation examination.

162. Action taken in Bengal.—In order to admit of the eventual introduction of drawing into middle schools, the Local Government, in August 1891, gave orders that this subject should be made a compulsory part of the course in training schools, and that no candidate should be declared to have passed the vernacular mastership examination unless he has qualified in drawing. An expenditure of R6,000 was sanctioned for teaching drawing in the eight first-grade training schools, and masters were appointed before the end of the year, all of them being passed students of the School of Art. Since 1890 drawing has been an optional subject at the Entrance examination of the Calcutta University, and in the beginning of that year drawing classes were opened in three Government high schools, but the results were most discouraging; in 1891 only three candidates passed in drawing from these schools, and the following year only two passed. The experiment has not, however, been abandoned, and in one of the schools the further experiment of making drawing compulsory in all the lower classes has recently been tried. From the whole province 141 candidates took up drawing at the Entrance examination of 1892, of whom only 9 passed, 2 being Europeans or Eurasians. Of the 7 natives of Bengal, 4 came from Government institutions, 2 from an unaided school, and 1 was a private student. The Superintendent of the School of Art reports that he will not be able to supply more than eight teachers a year on the average; at that rate it would take half a century to provide teachers for all the high schools now in existence, so that unless demand creates supply, it will be impossible for many years to make drawing a compulsory subject. In order to make the fullest possible use of the teachers that have been appointed, arrangements have been made for each

teacher to hold classes in two or three schools, and permission has been given to admit to these classes boys from high schools under private management, if the accommodation is sufficient, on payment of a fee of eight annas a month.

With regard to elementary science no action was considered necessary: this subject has for many years been a compulsory one in both upper primary and middle schools; in the former, boys are required to read a sanitary primer, and either the elements of natural philosophy and physical science or an elementary treatise on agriculture. In middle schools the course includes sanitary science, and either botany, chemistry, or natural philosophy. In high schools the course of study is governed by the Entrance examination, and since 1890 Huxley's Introductory Primer has been included in the examination.

Attempts have repeatedly been made to induce the Senate of the University to establish an alternative Entrance examination of a more practical character than the present one, but without success, and the Local Government does not consider it practicable to introduce a bifurcation of studies in high schools without the co-operation of the University.

163. Action taken in the N.-W. P.—As stated elsewhere, the University of Allahabad has recently determined to establish a final examination for high schools alternative to the ordinary Entrance examination, which will also, under certain conditions, serve as a matriculation examination for candidates who intend to take up the Science course at the higher examinations. All the details of the course of study for this examination have not yet been settled, but the definitions of the principal subjects are given in paragraph 101 of the chapter on secondary education. Regarding the introduction of drawing in secondary schools, the Director stated in 1888 that nothing could be done till drawing masters had been appointed to teach the pupil teachers at the normal schools, and a few months later that, however desirable the proposal to introduce drawing into public schools might be, there were no funds, but that if funds could be made available he would prepare a scheme for introducing this subject into the zila and public elementary schools. Three years later a Committee on Technical Education expressed the opinion that until a school of art had been established, the Department could neither procure competent teachers nor exercise supervision over local drawing classes. No steps have yet been taken to increase the supply of competent teachers, for the Local Government, owing to want of funds, has decided against the immediate establishment of a school of art. Drawing masters have been appointed recently in five Government high schools in which provision has been made for teaching most of the subjects of the new final examination for high schools. The normal schools have not been provided with teachers of drawing; the course of study in these schools embraces so many subjects that it would be impossible to add drawing to the list without lightening the course in other respects. Up to the end of 1891-92 drawing did not form part of the curriculum in any class of schools, except schools for Europeans in which it is an optional subject for the secondary classes. It has since been included in the middle examination of Anglo-Vernacular schools being made alternative with the classical language. Elementary Science (physical geography, sanitary primer, and primer of physical science or primer of biology) is a compulsory subject in the middle standards of middle vernacular schools, and the Way to Health is read in some of the classes of high schools, but no other branch of science was taught before the introduction of the new final standard. The Director considered that the question of making science a compulsory subject in English schools should be decided by the University.

164. Action taken in the Punjab.—The following extract from a letter dated the 11th July 1888 shows that the Punjab Government did not set a high value

upon drawing as a subject of general education:—"The Lieutenant-Governor understands that it would not at present be practicable to teach drawing in Primary Schools; nor would it in his opinion be practically of much use to do so, as the number of pupils in these schools who belong to the artisan class, or who can be expected to take to professions in which the training of hand and eye is important, is extremely small. The disinclination of the labouring classes in India to educate their children, and the restrictions imposed by the system of caste in respect to arts and occupations, make the question a very different one in India from what it is in England. The same arguments apply with greater force to the Secondary Schools, which are attended almost entirely by the sons of traders and shopkeepers and officials of various class, with a few of the sons of the richer agriculturists in cities, and a larger, though still small, proportion, of the agricultural class in some of the country towns; His Honor does not think that a knowledge of drawing would be desired by, or be of any practical use to, the lads in these schools, and in the case of Anglo-Vernacular Middle Schools the boys have so much to learn already that it would be difficult to find time for an additional subject. Under these circumstances it does not appear to His Honor to be desirable that drawing should be made a part of the regular curriculum in schools for general education. At the same time he thinks that an opening for the teaching of drawing should be provided. It has therefore been determined to make both free-hand and mechanical drawing alternative subjects in the High Department of the Central Model School, and to authorise Local Bodies to introduce drawing into Anglo-Vernacular high Departments and Vernacular Middle Departments under their control when certificated drawing masters can be provided. This will meet the requirements of students who desire to become draughtsmen, and also of those who intend to follow the scholastic profession, and who should at school receive such rudimentary instruction in drawing as will enable them hereafter to use the blackboard to good purpose." Elementary science (physics and chemistry) is one of the optional subjects at the Entrance examination of both Faculties, and physics alone holds a similar place in the middle school examination; owing to the insufficiency of the supply of competent teachers it is not considered possible to make science a compulsory subject in any of the schools for general education. The University has recently determined to hold an alternative Entrance examination of a more practical character than the present one, and in addition a clerical and commercial examination, which will serve as a final standard for high schools, but will not lead up to any of the other examinations of the University: the schemes of both examinations are described in paragraph 102.

165. **Action taken in the Central Provinces.**—More attention has been paid to the preparatory form of technical education in the Central Provinces than in any other province of India. Before the publication of Mr. MacDonnell's Note a few students had been sent to the Bombay School of Art to learn drawing, and drawing classes had been opened in connection with the normal schools at Nagpore and Jubbulpore. Immediately after the publication of the Note, rules for the encouragement of elementary drawing were sanctioned, almost identical with those in force in Bombay, the examinations being those of the Bombay School of Art. Before the end of 1886-87 arrangements had been made for supplying drawing masters to all the normal schools and the principal high schools, and in April 1888 the Chief Commissioner directed that drawing should be made a compulsory subject in all departmental lower primary schools, and an optional subject in middle schools. The reason for this divergence from the course recommended in the Note is thus explained: "I have insisted upon this because it seems to me that the subject should be compulsory until it can be

seen whether a boy has a turn for it or not. Afterwards it is mere waste of time to compel lads to practise drawing if they show that they will never make anything of it." Afterwards drawing was made compulsory in the upper primary section also, and in order to encourage boys to take it up in the middle stage, ten prizes of R5 each are offered at the middle school examination for each of the three branches, free-hand, model, and geometrical drawing, and in the award of scholarsips preference is given to boys who pass in drawing, if the marks in other subjects are nearly equal These rules apply also to aided schools in which the subject has not yet been made compulsory. All the high and middle schools have now been supplied with drawing masters, and many teachers of primary schools have been sent in to the normal schools for a course of three months' training in the subject. Drawing is a very popular subject with both parents and pupils, and the Deputy Commissioner of Raipur remarks: "The aptitude for drawing displayed by many of the boys struck me as being very remarkable. They quite look upon it as an amusement as well as a lesson." During the last five years 225 candidates have obtained the certificates of the Bombay School of Art, the number in 1891-92 being 78 against 9 in 1886-87.

The teaching of science has been taken up with equal vigour. Since 1888 physical science has been a compulsory subject in the middle standards of all schools under public management, and an optional subject in aided schools, while in all the primary classes lessons must be given on common objects, such as animals and plants, metals, and other substances used in ordinary life. In the middle school examination physics is an optional subject, since aided schools send up candidates, but 30 prizes of R5 are offered to those who obtain the highest number of marks. When orders were given for the introduction of physics very few of the teachers of middle schools knew anything of the subject, but this difficulty was overcome by the appointment of three itinerant science instructors, one for each circle. Courses of lectures were delivered by them at certain selected centres, and the teachers of adjacent schools were directed to attend; at the end of each course an examination was held, and certificates awarded to the successful candidates. In this way all the high and middle English, and a fair number of middle vernacular, schools were provided with teachers capable of giving instruction in science, and all the important schools have been supplied with the necessary apparatus. Sanitation has also been made a compulsory subject in the upper primary standard of all departmental schools, and agriculture in the upper primary and middle sections of all vernacular schools in rural districts; in urban schools this subject is optional. The optional subjects also include mensuration and surveying with plane-table and cross-staff. In order to enable the masters to give practical illustration of the lessons in agriculture and to provide the boys with useful and healthy occupation, school gardens have been opened in many of the rural schools. The work of watering and planting is done by the boys themselves, each boy having his own plot of ground assigned to him. Regarding these gardens one Inspector writes:—

"One hundred and thirty-two gardens with 36 wells have been started in the Chhattisgarh Division. In the Uriya schools I am glad to notice that school gardens are proving an indirect blessing to the people. All efforts to induce the Uriyas to drink well water in preference to the water of their filthy tanks have hitherto proved unavailing. Wells have consequently become foul and stagnant for want of use. The school wells however, which are in regular use for gardening purposes, always remain sweet and clear. The boys who drink from the school wells soon acquire a taste for good water, and I have more than once found the school well used by the villagers in preference to the tank, the original impulse in this direction having doubtless come through their children."

The special feature of the educational system of the Central Provinces is the introduction of a course of manual training based upon the Slöjd system. "The object of the system is, by a series of simple exercises in wood-work, clay modelling, card-board modelling and paper-work, to train the faculties to accuracy, dexterity and a sense of proportion, to divert the mind from words to things, to dignify labour and thereby, possibly, to destroy that contempt for manual work so common among the middle and upper classes in this country, which paralyses all efforts to give education a more practical bent. The system is based on drawing, every student being required to draw to scale the article he is required to make, and then to construct it from the drawing." The work to be done in each class is defined by reference to particular chapters of a text-book, (Hand and Eye Training, by George Ricks), so that it is useless to reproduce the syllabus here. The Kindergarten system, of which manual training is a development, was introduced into the normal schools in 1888-89, and the extension of the system in the following year, and in 1890-91 manual training was made compulsory in all schools under public management from the third standard upwards, and the Kindergarten system in the first and second standards. It was found, however, that the system was unpopular, mainly because its object was misunderstood, and its enforcement threatened to reduce the attendance in primary and middle schools; it was therefore transferred to the list of optional subjects shortly after the end of 1891-92. "The Chief Commissioner during his cold weather tour paid special attention to the subject of manual training, and he has no doubt that at present it should not be a compulsory subject of instruction. Education in the Central Provinces is as yet exceedingly backward. There are no masters competent to teach the subject of hand and eye training intelligibly. It is not well to force the wishes of the people unnecessarily, or take up the time of youths who want to learn the three 'R's' with matters of less immediate importance to them. In time matters will improve; and then hand and eye training may be made to take a more prominent position in the curriculum than it now deserves."

In the absence of a local University no action could be taken upon the recommendation regarding a bifurcation of studies in high schools; but now that the Allahabad University has decided to establish an alternative Entrance examination of a more practical character, while the Calcutta University has refused to do so, it is probable that most of the schools will send their candidates to the Allahabad examinations: the Government College at Jubbulpore has already been affiliated to the new University.

166. Action taken in other Provinces.—In Burma drawing has very recently been made a compulsory subject in Government and Municipal schools; in other schools it is an optional subject in the upper primary and middle standards, and the grants for passing in this subject are rather higher than those given for most of the other subjects. Agriculture is an optional subject in the middle classes, and hygiene in all the standards above the first. In the middle department of Anglo-Vernacular schools Huxley's Primer is also an optional subject, but it is not included in the list of subjects for indigenous schools.

The system of Kindergarten exercises and manual training adopted in the Central Provinces has also been included in the list of subjects that may be taken up, but it is counted as belonging to the technical course instead of forming a part of general education. A Kindergarten class was opened for the first time in 1890-91, and in 1891-92 this method of teaching was introduced into some of the normal schools.

In Assam the teaching of drawing was said to be impracticable, as the teachers were ignorant of the subject, and there were no funds available for procuring better qualified teachers. Mr. Clarke, the Inspector of Schools, was

strongly opposed to the introduction of science into all secondary schools, chiefly on account of the inability of the teachers to teach it properly, and the Chief Commissioner agreed with him: a certain amount of science is, however, taught in middle and high schools, the course of instruction being practically the same as in Bengal.

In Coorg a drawing master has been appointed in the Central School, Merkara, the only Government high school, and elementary science has been introduced into the middle schools.

In Berar drawing, up to the standard of the Bombay second-grade certificate, and elementary science, including physics and a sanitary primer, are grouped together as an alternative to a classical language in high schools, but neither of these subjects has been included in the revised standards for middle or primary schools.

167. Third Group of Recommendations.—Technical Education Proper.—Of the eight recommendations contained in this group, the 5th and 6th refer to particular institutions, the 7th and 8th to special branches of technical education, and the 18th deals with the financial question; the other three (14-16) are the most important, as they give some indication of the general character of the scheme contemplated by the Government of India. Briefly stated, these recommendations are that a technical branch should be attached to middle or high schools wherever there is demand for technical training; that all these technical branches should be subordinate to the Central Art College or Engineering College of the province, and that examinations for testing the progress of the scholars should be instituted by the Universities. The character of the scheme is more clearly shown in the extract from the Resolution on Sir Alfred Croft's Review quoted in paragraph 149.

In the same Resolution it was suggested that an industrial survey of each province should be completed, in order to ascertain what industries were sufficiently centralised to render the establishment of technical schools in connection with them desirable, and that, with a view to turning the knowledge acquired by such a survey to the best account, a committee of educational experts and professional men should be formed in each province to advise the Local Government on all matters connected with technical education.

The Resolution indicates very clearly the nature of the instruction that should be given in the technical schools; in the centres of industry ample provision exists for teaching boys to follow in the footsteps of their fathers and become skilful artisans, and it is not proposed that this teaching should be carried on in the schools instead of in the factories or workshops: the instruction given in the schools, whether preparatory or special, should be in those branches of science and art which are most closely connected with the industries carried on in the neighbourhood. In other words, the technical education given should come under one of the first two classes described in the first paragraph of this section, and should not deteriorate into the third form. This may appear too obvious to require explanation; but it will be shown in the following paragraphs that different views are held in some provinces, and that the third form of technical education has been encouraged at the expense of the second.

168. The Madras Scheme of Technical Education.—The Madras scheme of Higher Examinations in Science, Art, Industries and Commerce was published in 1886, and was described in the last Review, and more fully in paragraph 63 of Mr. MacDonnell's Note. It was modified in 1890 by the addition of lower or elementary examinations, which formerly were included in the middle school examination, and from time to time additional subjects have been included in the lists for both examinations. The rules published in 1890 remained in force till the end of the period under review, but in January 1893

they were republished in a simpler form, the two sets of examinations having been amalgamated into one scheme. The following are the most important parts of the revised notification :—

The Government Technical Examinations, formerly known as the Examinations in Science, Art, Industries, and Commerce, are intended for the encouragement of scientific and technical instruction, with special reference to manufactures and industries, and generally to the necessities of the practical side of life; and for the purpose of testing the qualifications of persons desirous of becoming—

i.—Teachers of science, art, or commercial or industrial subjects;

ii.—Civil, mechanical and electrical engineers, draughtsmen, and telegraphists;

iii.—Designers, engravers decorative artisans, and art workmen in any branch of artistic industry included in this notification;

iv.—Agriculturists, foresters, veterinarians;

v.—Reporters, auditors, actuaries, and commercial employés;

vi.—Managers and foremen of manufacturing, printing, and other industrial establishments suitable for this Presidency;

vii.—Employés under Government, Local Boards, or Municipal Councils in any department in which a practical knowledge of any of the subjects included in this notification is required.

2. The examinations shall be of three grades—

(1) Elementary. | (2) Intermediate. | (3) Advanced.

6. The examinations shall be open, subject to any conditions laid down in the syllabuses hereinafter mentioned, to—

i.—All persons who have passed the compulsory subjects of the Lower Secondary Examination (in the case of the Elementary Examinations) or of the Upper Secondary Examination (in the case of the Intermediate and Advanced Examinations). The Commissioner* may accept any other examination which he considers equivalent or higher.

ii.—All persons who are certified by the head of a recognized technical school of class to have completed the prescribed course in the subject or subjects in which they appear.

iii.—All employés under Government, Local Boards, or Municipal Councils who are required to pass in any of the subjects included in this notification.

iv.—All other persons who are specially permitted by the Commissioner to appear.

10. The following are the subjects in which examinations shall be held :—

CIVIL ENGINEERING.

Building Materials and Construction	Elementary.	Intermediate.	Advanced.
Building Drawing and Estimating	Do.	Do.	Do.
Hydraulics and Irrigation Works	Do.	Do.	Do.
Earth-work and Road-making	Do.	Do.	...
Bridge-work	Do.	Do.	...
Surveying and Levelling	Do.	Do.	Advanced.
Applied Mechanics	Do.	Do.	Do.
Mensuration	Do.	Do.	...
Practical Plane and Solid Geometry	Do.	Do.	Advanced.
Carpentry	Do.	Do.	...

MECHANICAL ENGINEERING.

Machine Construction	Elementary.	Intermediate.	...
Machine Drawing	Do.	Do.	Advanced.
Steam and the Steam-engine	Do.	Do.	Do.
Fitter's work	Do.	Do.	...

* The Commissioner for the Uncovenanted Civil Service Examinations.

ELECTRICAL ENGINEERING.			
Practical Telegraphy	Elementary.	Intermediate.	Advanced.
Electric Lighting and Transmission of Power	...	Do.	Do.
Electro-Metallurgy	...	Do.	Do.
PHYSICAL SCIENCE.			
Heat	...	Intermediate.	...
Light	...	Do.	...
Electricity and Magnetism	Elementary.	Do.	Advanced.
Inorganic Chemistry	Do.	Do.	Do.
Organic Chemistry	...	Do.	Do.
Metallurgy	...	...	Do.
Physiography	Elementary.	Intermediate.	...
Photography	...	Do.	...
GEOLOGY.			
Geology	...	Intermediate.	Advanced.
Mineralogy	...	Do.	...
BIOLOGY.			
General Biology	...	Intermediate.	...
Animal Physiology	Elementary.	Do.	...
Botany	Do.	Do.	...
SANITARY SCIENCE.			
Hygiene	Elementary.	Intermediate.	...
General Biology (special)	...	Do.	...
AGRICULTURE.			
Agriculture	Elementary.	Intermediate.	Advanced.
Agricultural Engineering	...	Do.	...
Botany (special)	...	Do.	...
Horticulture	...	Do.	...
Forestry	...	Do.	Advanced.
Economic Entomology	...	Do.	...
Tobacco	...	Do.	...
VETERINARY SCIENCE.			
Veterinary Science	Elementary.	Intermediate.	Advanced.
COMMERCE.			
Book-keeping	Elementary.	Intermediate.	Advanced.
Commercial Correspondence	Do.	Do.	Do.
Banking	Do.	Do.	...
Commercial Geography	Do.	Do.	Advanced.
Shorthand	Do.	Do.	Do.
Annuities and Life Insurance	...	Do.	...
MUSIC.			
Music	Elementary.	Intermediate.	Advanced.
DRAWING, ETC.			
Free-hand Outline Drawing	Elementary.	Intermediate.	Advanced.
Design	Do.	Do.	Do.
Geometrical Drawing	Do.	Do.	Do.
Painting	Do.	Do.	Do.
Modelling	Do.	Do.	Do.
Wood Engraving	...	Do.	Do.
Copper-plate Engraving	...	Do.	Do.

JEWELLER'S WORK.

Jeweller's work	Elementary.	Intermediate	...
Silversmith's work	Do.	Do.	...
Watch and Clock repairing	...	Do.	...

PRINTING, BOOK-BINDING, AND TYPE-FOUNDING.

Letter-press Printing—			
Compositor's work	Elementary.	Intermediate.	...
Proof-reader's work	Do.	Do.	.
Press work	Do.	Do.	...
Machine work	Do.	Do	..
Printer's Warehouse work	Do.	Do.	..
Book-binding	Do.	Do.	.
Type-casting	Do.	Do.	
Stereotyping	Do.	Do.	
Electrotyping	Do.	Do.	..

WOOD-WORK AND METAL WORK.

Cabinet-making	Elementary.	Intermediate	Advanced.
Blacksmith's work	Do.	Do	...
Carriage-building		Do.	

LEATHER-WORK.

Boot and Shoe making	Elementary.	Intermediate	
Tanning Leather	..	Do.	..
Saddlery and Harness making	...	Do.	

TEXTILE FABRICS.

Cotton-spinning	...	Intermediate.	...
Cotton-weaving	Elementary.	Do	...
Bleaching, Dyeing, and Printing Cotton	...	Do.	
Silk-dyeing	...	Do.	...
Silk Manufacture	..	Do.	..
Carpet-weaving	Elementary.	Do.	
Lace-making	Do.	Do.	.

GLASS AND POTTERY.

Pottery and Porcelain Manufacture	Elementary.	Intermediate.	..
Glass-making	...	Do	...

TAILORING AND DRESS-MAKING.

Tailoring	Elementary.	Intermediate	...
Dress-making	...	Do.	...

COOKERY.

Cookery	...	Intermediate.
Bread-making	...	Do.

14. To meet the requirements of candidates desirous of qualifying for a profession requiring a knowledge of more than one subject, certain of the subjects shall be formed into groups. In each group there shall be one or more principal subjects, the other subjects of the group being regarded as subsidiary to them for the purposes of the profession represented by the group. These groups shall be of two kinds: (1) groups of a lower standard, for passing in all the subjects of which a *Group Certificate* shall be awarded; and (2) groups of higher standard, for passing in all the subjects of which a *Diploma* shall be awarded.

The subjects for which Group Certificates are given are Building Construction, Machine Construction, Mechanical Drawing, Surveying, Hydraulic Engineering, Bridge construction, Sanitary Science, Electrical Engineering, Drawing, Letter-press Printing, Book-binding, Type-founding, Correspondence,

and Book-keeping. Diplomas are given for Agriculture, Veterinary Science, Elec-trical Engineering, Drawing, and Commerce. The mode in which the subjects are grouped together may be judged from the following specimens:—

GROUP CERTIFICATE IN SANITARY SCIENCE.

Hygiene	Intermediate.
Animal Physiology	Do.
General Biology (special)	Do.
Physiography	Do.
Inorganic Chemistry	Elementary.

DIPLOMA IN AGRICULTURE.

Agriculture	Advanced.
Inorganic Chemistry	Intermediate.
Organic Chemistry	Do.
Veterinary Science	Do.
Botany (special)	Do.
Agricultural Engineering	Do.
Surveying and Levelling	Do.
Physiography	Do.

The grant-in-aid code provides for both salary and results grants to schools preparing candidates for these examinations, and 20 scholarships, each tenable for two years, are offered to candidates passing the elementary or intermediate examination to enable them to study for the next higher examination.

Such are the main outlines of the Madras scheme of technical education. The distinctive feature of the scheme is that it is not so much concerned with teaching as with testing the results of teaching. This feature is copied from two English models,—the Science and Art Department of South Kensington, and the City and Guilds of London Institute. In the letter submitting the original draft notification (31st March 1885), the Director, after giving a short account of these English institutions, said: "Briefly, then in England the system found to be most successful in extending and improving technical education in science and art has virtually been to begin with a system of general examinations, thus creating a demand for trained teaching, and then to train teachers to meet that demand. This system leads to a continually-increasing number of new schools and to instruction continually improved as teachers are forthcoming abreast with the most recent progress made in science and arts as applied to the industries. It is matter of notoriety that in this country still more than at home, to institute public examinations in any suitable branches of knowledge is to create a demand for instruction in them." The examinations in science and art closely resemble those of South Kensington, but the examination in industrial subjects differ widely from those of the Institute. The latter deal almost exclusively with the applications of science and art to the various trades, while the Madras examinations are chiefly in the practical work of the trades. There is a still wider difference in the class of persons for whom the examinations are intended. In England most of the schools that prepare candidates for the examinations are night schools, and the students who attend them are artisans and other persons engaged during the day in various industrial and commercial pursuits; but the statement of objects and reasons in the first paragraph of the notification shows that the Madras examinations are intended for persons who are *desirous of becoming* artisans, etc. A very large proportion of the persons for whom the English night schools are intended would be excluded from the schools recognised in the Madras Code by rule 5 (*c*) of Chapter V, which says that "pupils admitted into science or art schools or classes (unless specially exempted by the Director) must have passed the

Middle School examination, or some examination accepted by him as equivalent or higher;" and paragraph 6 of the notification above quoted would equally prevent them from appearing at the examinations without attending such schools or classes. The English technical schools aim at supplementing the practical training given in the workshop or factory by instruction in the principles upon which that training depends, and practical training in allied industries; but the Madras schools seem to be intended to replace the factory and workshop altogether. They therefore belong to the last of the three classes referred to in the first paragraph of this section; the only schools mentioned in the provincial reports which appear to belong to the second class are the artisan classes of the College of Engineering and the School of Arts, and perhaps one or two schools in Madras for teaching the commercial subjects of the notification. The Committee appointed to draw up a scheme for the Victoria Technical Institute recognised the value of classes for artisans; they resolved "That with a view to extend as widely as possible the benefits of technical education among the native artisans, the Institute should establish vernacular classes at one or more convenient places for instruction in mechanical drawing, rudimentary arithmetic, and details of design in the various trades of the country;" and again "That a library of selected technical works should be established in it to be kept open very early in the mornings and late in the evenings, so as to be available for artisans out of working hours." In the later rules of the Institute no direct reference is made to this part of the scheme, and it does not appear that any classes for artisans have been opened. In a memorandum dated the 18th July 1888, Mr. Adam, Principal of Pachaiyappa's College, and a Member of the Council of the Institute, expressed the opinion that little, if any, direct good would accrue from attempts to improve the workmen of this generation. "They are wholly illiterate; their technical skill, great as it often is, is the result of an hereditary instinct combined with long rule-of-thumb practice; and it would be utopian to expect them to adopt the more scientific, time and labour-saving, and therefore more remunerative, processes of modern days. All we can hope to do is to awaken their interest and, convincing them of the practical benefit to be gained, induce them to procure for their sons the educational advantages of which they were themselves deprived."

In 1884 Mr. Havell, Superintendent of the School of Arts, was deputed to visit the various districts of the province, and report upon the condition of the industrial arts, but no complete industrial survey has been attempted. In December 1888, the Local Government submitted Mr. Havell's reports on 15 districts, and stated that the general result of these reports was that an industrial survey of the nature suggested by the Government of India would be infructuous.

With regard to the 7th recommendation, the Local Government stated that in 1883 orders had been given for the introduction of a scheme of agricultural instruction into the Government high and middle schools, but that the withdrawal of Government from upper secondary education had put it out of the power of His Excellency in Council to give effect to this resolution. An account of the Saidapet College of Agriculture will be given later.

There are no special schools for teaching land surveying: this subject appears to be taught only in the colleges of engineering and agriculture.

Drawing classes have been opened in connection with the two first-grade Government colleges in the mofussil, and industrial classes have been attached to a few schools, carpentry being the branch usually selected. Regarding one of these classes Dr. Duncan says: "The carpentry class attached to the Rajahmundry College can hardly be dignified with the name 'technical,' but, as far as it goes, it is a step in the right direction. Here undergraduates, Brahmins

included, work daily in the carpenter's shop under a native instructor. The work is popular among the students, and the articles turned out are said to be some of them, of very fair workmanship. If only helping to break down the prejudice among caste Hindus against manual labour, the Rajahmundry experiment deserves special mention."

169. Madras College of Engineering.—The first of the special recommendations was that greater facilities should be provided in this institution for practical training. The course of instruction was not entirely theoretical, for in addition to a fairly complete course of surveying, occupying two to four mornings a week for two years, the students made frequent visits of inspection to works for the manufacture of building materials, as well as to works of construction in progress in Madras, and were required to write full notes of their inspections; they also visited completed works, such as bridges and irrigation works, and made drawings and dimensioned sketches of them. The revised rules, both of the University and of the College, assign a definite course of practical work: the University has extended the course of study of the theoretical subjects from two years to two years and a half, and has instituted a preliminary examination in mathematics, science, and drawing after the first eighteen months of the course. After passing the final examination for the degree, candidates must spend at least one year on engineering works, or in engineering workshops, before being admitted to the degree. The college course for civil and mechanical engineers is longer than that prescribed by the University; the theoretical course lasts three years, and this is followed by a practical course of two years, the first year being spent by both classes in engineering workshops, and the second on engineering works or in workshops, according to the branch chosen. For engineer subordinates the theoretical course is six months shorter, but the practical course is the same as for civil engineers. Besides these there are classes for training draughtsmen and surveyors, and a maistry and artisan class. The last is an evening class, and instruction is given through the medium of the vernacular in arithmetic, elementary geometry, mensuratiou, scales, plan-drawing, and the elements of engineering. No examination is held, but a certificate of attendance is given by the Principal after a minimum period of one year's regular study; and the students are also encouraged to appear at the elementary examinations under the science and art notification. The students of this class are selected from the sons of artisans or maistries, or from youths who have already had practical training in some of the building trades.

The University classes contained 10 students in March 1892 against 17 in 1887; the other classes contained 185 against 164, but the report does not show the number in each class. At the final examinations held in December 1891, 11 students passed from the class of engineer subordinates, 10 from the draughtsman class, and 11 from the surveyor class, while 35 students of the artisan class completed their course. The number of candidates for admission to the various classes being on the increase, it is under contemplation to hold a competitive examination for admission to the draughtsman and surveyor classes, and a final qualifying test for the artisan class. During the last five years 17 candidates have obtained the degree of B.C.E. From 1895 this degree will be changed to Bachelor of Engineering, so as to include both Civil and Mechanical Engineering. The total cost of the institution has risen from R44,730 to R60,053, and the cost to provincial revenues from R32,885 to R50,450. The fee-receipts have fallen from R10,621 to R9,603, owing to the decrease in the number of students in the University classes. These students pay a yearly fee of R170, engineer subordinates pay R60, draughtsmen and surveyors R36, and maistries and artisans R10.

170. Victoria Technical Institute, Madras.—This Institute was established as a permanent memorial of the Jubilee of Her Majesty the Queen-Empress out of subscriptions raised in 1887 and a grant of R46,413 from provincial revenues. The President and four out of the twelve members of the Council are nominated by the Local Government, the other eight members being elected by the members of the Institute. The Government has also agreed to give the use of a part of a building now in course of construction for a free library, in which a technical library and museum will be opened, and lectures will be delivered, in addition to regular classes for technical instruction. Pending the completion of this building the funds of the Institute have been devoted chiefly to the award of scholarships to enable teachers to study technical subjects. The subjects chosen are drawing, engineering, agriculture, and commerce; but the demand for teachers of the last two subjects is so small that all the teachers trained in them have not been able to secure appointments, and the Council have decided to abolish these scholarships, and increase the number given to teachers studying drawing, all of whom very readily find employment. Some courses of lectures on chemistry and engineering have been delivered, but the attendance at them was not as good as was expected, and one of the lecturers in his report says: "I am distinctly of opinion that the interest in technical lectures of this description is practically *nil*, and that no benefit, commensurate with the trouble and expense involved, is likely to be derived from them." The Council, therefore, decided to stop both courses of lectures, and made arrangements for a course of 15 lectures on the principles of hygiene; but again the attendance was not good enough for the course to be completed, and no lectures are included in the programme for the next session. The invested capital of the Institute amounts to R1,42,000, giving an annual income of nearly R5,500; the subscriptions in 1891 came to only R225, and Government gave R538 in the form of scholarship grants.

171. Madras School of Arts.—This school is divided into two sections; in the fine arts department instruction is given to students who wish to practise picture-painting or sculpture. In this department the fees are R8 a month, and the number of students is very small. The industrial department is again sub-divided into three sections; in the first drawing alone is taught, in the second various art industries, while the third consists of pupils receiving a general education in addition to instruction in drawing. The last section was added in 1889-90, because it was found that the majority of the students in the industrial classes had not received a sufficient general education to enable them to make good progress in the special work of the institution. Instruction is given up to the sixth standard, a year below the upper limit of the middle school course; the boys work in the school for four hours a day, and in the drawing class for two hours a day. In the drawing department students are prepared for the elementary, intermediate and advanced examinations, but the majority of those who go beyond the elementary standard do so with the object of qualifying as teachers of drawing. In 1891-92 only four students completed the second stage of the intermediate examination, while none passed the advanced examination. In the workshops are taught carpentry and wood-carving, lacquer work, goldsmith's and silversmith's work, pottery painting and carpet-weaving. The sons of *bonâ fide* artisans pay no fees, while others pay four annas a month. Many of the boys receive small stipends as apprentices, the amount of the stipend depending upon the work done and the sale of the articles made. All the boys in this department receive instruction in drawing, particular attention being paid to design. The superintendent "claims for the school that it has revived almost extinct native industries; that it secures and maintains the best native designs and decorative methods of the past; and that it is successfully combatting the

deteriorating influences to which they are exposed in modern India. The leading principle in the school is that Indian designs are strictly adhered to, but the boys are sufficiently taught the principles of design to enable them to adapt oriental ideas to European requirements. For the instruction of the boys the very best native workmen are obtained and placed in charge of the shops. They are allowed freedom in working out their own designs, subject to the general supervision of the superintendent." The school was visited in 1890 by the Committee on Technical Education appointed by the Government of the North-Western Provinces, and the above description is taken chiefly from their report Regarding the characteristics of the various art schools of India the Committee wrote:—" Compared with the schools of art at Calcutta, Bombay, and Lahore, the Madras institution is remarkable for the attention paid in it to art in its application to various industries. The schools at Bombay and Calcutta are mainly drawing schools, and have hitherto aimed at turning out finished drawing masters, mechanical and architectural draughtsmen, and occasionally a portrait or landscape painter. In both these schools developments in the direction of industrial art are in contemplation. But, so far, Madras is distinctly ahead. The Lahore school more closely follows the Madras lines; but it is on a comparatively small scale and so far has been without workshops and other industrial appliances. The Madras school appears more likely to be useful than any other similar institution in India. It not only trains up drawing masters for the schools, but it endeavours to keep in contact with the arts of the country, and to influence the workmen."

During the last five years the number of students has increased from 265 to 426, or by more than 60 per cent. The number in each of the departments above named is not stated in the report; but the following is the classification of the students according to the special branches taken up in addition to drawing, which is taught to all: modelling 14, engraving 21, carpentry and wood-carving 36, lacquer work 6, silversmith's work 41, goldsmith's work 18, pottery-painting 8, carpet-weaving 45. About one-fourth (109) of the students are the sons of artisans, but in 1891 the number was considerably greater. Classified according to race and creed, there are 50 Europeans, 33 Native Christians, 30 Muhammadans, and 313 Hindus.

The total cost of the school has risen from R36,282 to R41,402, and the cost to Government from R26,920 to R31,255.

172. **Madras College of Agriculture, Saidapet.**—Before 1886-87 the students of this institution were examined by members of the staff, and received college certificates; but when the science and art examinations were instituted, the college was reorganised, and those examinations were made the final tests of the students. The college was divided into two departments: in the junior department the course lasted one year, and the students were prepared for the group certificate in agriculture and the allied subjects (not included in the revised notification); in the senior department the course lasted three years, and the students competed for the diploma in agriculture (paragraph 168). At the same time the Government farm at Saidapet was made over to the college, and has since been worked as a demonstration farm entirely for educational purposes. The farm comprises 30 acres, chiefly of as bad a soil as it is possible to imagine, being little better than pure sand. It is well provided with buildings, implements and livestock, but the area is so small and the land so poor that practical training in agriculture is not efficiently given (report of the North-Western Provinces Committee). In the report for 1888 89 it is stated that the Board of Revenue had agreed to transfer to the college some fields adjacent to the farm, but the later reports do not show whether this has been

done. A small botanical garden is attached to the farm, and near it there is a veterinary hospital, where the students may be trained in veterinary surgery and medicine. In the senior department, 7 scholarships are allotted annually to the districts of the province in a prescribed order; the scholarship-holders are nominated by Collectors from among the younger officers of the Revenue Department and candidates for posts in that department. In the junior department scholarships were given in the same way, but this department has now been abolished on the recommendation of a committee appointed in 1889.

In place of this department Government sanctioned the opening, in representative districts, of five farm-schools to afford instruction in the compulsory subjects of the upper secondary examination and in agriculture and the allied subjects, but final orders on the organisation of these schools had not been passed at the end of 1891-92. A second committee was appointed in 1890 to draw up a revised course of study for the college; the draft scheme proposed was tentatively introduced at the end of 1891-92, but has not yet received the sanction of Government.

In consequence of these changes in the constitution of the college, the number of students has fallen from 84 to 45, of whom 41 are Hindus, 3 Christians, and one a Muhammadan. Of the Hindus no less than 33 are Brahmins, almost all of whom are, or hope to be, officials of the Revenue Department. "The Madras Government is especially anxious to attract to the school the sons of wealthier landholders, who will have other views of life than the obtaining of subordinate revenue employment. But so far this hope has not been realised."

The total expenditure in 1891-92 was R28,972 and the Government expenditure R25,273; the fees amounted to only R339. The expenditure for 1886-87 is not separately shown in the report.

173. Industrial and other Special Schools, Madras.—During the year 1886-87, the first year of the introduction of the system of industrial examinations, the number of industrial schools rose from 10 to 16, and the number of pupils from 295 to 692; since that time the rate of progress has been much slower, the number of schools in 1892 being 18 with 997 pupils. "All the 18 schools were not *bonâ fide* Industrial institutions, some of them being only experimental classes. Only a few schools have secured a permanent footing as Industrial institutions and have been doing really good work as such." Drawing was taught in 10 of the schools to 403 pupils, a large increase over the figures for the preceding year. The industries most commonly taught are—carpentry 667 pupils, tailoring 155, cloth and carpet-weaving 109, blacksmith's work 89, embroidery 64, lace-making 55; the list also includes boot and shoe making, modelling, art needle-work, gardening, rattan work, tambour work, printing, engraving, silversmith's work, book-binding, braid-making, and tin-work. In the report for 1889-90 the Director divides the schools into two classes: a school of the first class "is a charitable institution, having in view the immediate amelioration of the condition of destitute children by feeding, clothing and housing them, and by imparting to them instruction in the three R's and in some handicraft, so that, when grown up, they may be able to gain a livelihood." A school of the second class "is an educational institution, having in view the improvement of the arts and industries by the instruction of the rising generation in the principles that underlie the several trades and practical pursuits, and by that training in the application of these principles which goes to make the skilled tradesman, mechanic, artist, or agriculturist. Classes of institutions so different as these two should not be confounded. Above all things, the former should not be held up as the type which all Industrial schools should strive to realise. Unfortunately, most of the large Industrial schools in this Presidency are of the

former kind, their main and immediate purpose being not the improvement of the arts and industries by the training of intelligent and skilled workmen, but the provision of a home at the present and a means of living in the future for destitute and orphaned children. As charitable institutions, they deserve all the help the State can give. But it follows from their peculiar character that they cannot be subjected to the same regulations as institutions the primary aim of which is educational. Profits must bulk largely in the minds of the managers of the former; the less they do so in the minds of the managers of the latter, the better." "The lack of qualified teachers of pure industrial subjects is only very slowly being supplied. In subjects of a higher character and better entitled to be called technical, such as those taught in the Colleges of Engineering and Agriculture and in the higher department of the School of Arts, the prospects of obtaining within a reasonable time a steady supply of competent instructors are fairly promising. But I can see few signs that pure Industrial schools are gradually being supplied with trained instructors in such subjects, for example, as carpentry, blacksmith's work, and weaving. Ordinary workmen are to be had in plenty for the wages offered: men who all their lives have worked in a rule-of-thumb way, ignorant of the principles on which their tools are constructed and according to which the several operations are performed. With such men as teachers, pupils do, in course of time, acquire a certain manual dexterity in carpentry, etc, but I fail to see that their skill as artisans is any whit superior to what it would have been if they had learnt their trade in the ordinary way. In visiting an Industrial school the other day, I found a boy, the son of a carpenter, learning carpentry under a native carpenter, presumably no better instructed than the boy's own father; and I could not help asking myself whether the boy's father would not have instructed him equally well, and whether carpentry as an industry was likely to be improved by such boys attending an Industrial school like the one referred to. Until we can get instructors in the various trades who not only can do the work in the presence of the pupils, but can also explain the reason why an operation is performed in one way rather than in another, I cannot look upon the work of Industrial schools as having a high educational value."

Out of the 18 schools 11 presented 98 pupils for examination in industrial subjects, of whom 80 passed; in the intermediate grade 6 passed in lace-making and 1 in printing; in the elementary grade 15 passed in carpentry, 10 in tailoring, 9 in carpet-weaving, 8 in cloth-weaving, 8 in lace-making, 7 in embroidery, 7 in blacksmith's work, 3 in boot and shoe making, and 2 each in jeweller's work, silversmith's work, and printing.

The total cost of the schools and the Government expenditure have increased in a much larger proportion than the number of pupils; in 1886-87 the total cost was R30,012; in 1891-92 it had risen to R85,605, but this probably includes the cost of raw materials afterwards sold in the manufactured state. The total value of the raw materials used for the articles sold is estimated at R27,936, and the amount realised from sales was R38,120, thus leaving a profit of R10,184. The Government expenditure rose from R6,299 to R18,380; including expenditure from local and municipal funds, the total cost to public funds of each scholar was R9 in 1886-87 and R28 in 1891-92.

The other special schools include two music schools in Madras for European girls, a Reformatory school, and two commercial schools or classes.

174. The Bombay Scheme.—In the Resolution of the 15th September 1886, which has already been quoted, the Local Government divided technical schools into two classes "according as the object is (*a*) disciplinary or (*b*) professional. In the first the main principles are taught and tools common to several or all industries are merely utilised to illustrate what is taught, and the object in view

is to give the pupil such preliminary training as shall enable him, when he afterwards selects his occupation and enters the workshop, to make much faster and more intelligent progress than he otherwise could have done. In the second the object is to teach one particular art or industry with such completeness that the pupil will be able, at the end of his training, to begin to practise it for a livelihood." These two divisions correspond to the first and third of paragraph 149, no room being apparently left for the second and most important form of technical education; but the details of the scheme given in the Resolution, and afterwards carried out in the Victoria Jubilee Technical Institute and elsewhere, show that this branch of technical education has not been ignored. The scheme deals with three branches of the subject, according as the teaching relates to (1) agriculture, (2) art industries, and (3) mechanical industries.

The part of the scheme relating to art industries was based upon a suggestion made by the Principal of the Sir Jamsetji Jijibhoy School of Art: "For the teaching of these subjects (wood-carving, pottery, art metal work, embroidery, enamelling), which are truly Indian in their treatment, the plan which presents itself to my mind as being the most effectual in resuscitating and fostering the artistic processes which are now on the wane is to procure the best native workman in his own special branch, giving him an atelier attached to the School of Art, fitted up in accordance with his special requirements. He should be paid a salary in addition to profits on sale proceeds for teaching a certain number of students who show an aptitude for his special craft. A sum should be allotted to each atelier for stipends and contingent expenses. It should be stipulated that the work produced be intrinsically beautiful, both as regards finish and design." Owing to financial pressure nothing was done in this direction for two or three years; but in the beginning of 1890 the "Reay Art Workshops" were added to the School of Art, and two years later they contained 86 apprentices, 19 working in gold and silver, 18 weaving carpets, 26 learning wood-carving, and 23 working in copper, brass or iron. The Principal reports "that each maistri is allowed perfectly free action in his own workshop as regards the selection of his tools and the materials he employs; and that no interference of any kind is made that would tend to disturb the traditional mode of working peculiar to each craft, beyond the insistance that the work executed shall be of the best, and that the ornamentation shall be, as far as it is possible to be in this age when art is cosmopolitan, Indian." All of the sections are now in full work, and turn out articles both useful and ornamental, though great difficulty is experienced in keeping good teachers. Besides their special work all of the students learn drawing. The total cost of the workshops in 1891-92 amounted to R8,425, and the sale proceeds to R1,617, but many articles were reserved for exhibition.

The Art School is divided into four sections,—an elementary or drawing class, which in 1892 contained 264 students, an architectural drawing class with 37 students, a painting atelier with 36 students, and a sculpture atelier with 9 students; the attendance in all the sections has increased since 1887. The students of the sculpture atelier have supplied modelled designs for ornamental details for the terminus of the Great Indian Peninsula Railway and many other public buildings. The total expenditure on the institution in 1891-92 was R49,068, including R37,407 from provincial revenues and R4,469 from fees; the average cost of educating each scholar was R187, of which Government paid R142.

With regard to mechanical industries, the question first considered was the establishment of a central Technological Institute for imparting the highest form of technical education; but the Local Government came to the conclusion

that the number of persons of sufficient scientific acquirements to avail themselves of the highest teaching of such an institution was not large enough to justify its establishment, and that it would be more economical to award stipends to enable graduates in science or engineering, or native managers or foremen of mills, to proceed to Europe to study at technical schools there. It was however considered practicable to establish an institution of a somewhat less ambitious character in the neighbourhood of the mills and the railway workshops of Bombay, in which "instruction should be given in such sciences as are necessary for the practical requirements of the managers and foremen on the one hand and of the skilled artisans and operatives on the other."

The time was a favourable one for the undertaking, for the Committee of the Ripon Memorial Fund, consisting of subscriptions amounting to more than a lakh and a half of rupees, had decided to spend the money on the advancement of technical education, and early the following year the Municipality of Bombay agreed to devote to the same purpose a sum of R80,000 voted for a permanent memorial of Her Majesty's Jubilee. With these funds and some other liberal donations it was determined to establish the Victoria Jubilee Technical Institute, the Government promising an annual grant of R25,000 (afterwards raised to R35,000), the Municipality a grant of R5,000, which was afterwards doubled, the two principal Railway Companies R1,200 each, and the Mill-owners' Association R2,000. His Excellency the Governor also offered to lend the greater part of Parel Government House for the use of the Institute; but this was rendered unnecessary by the munificence of Sir Dinshaw Manockjee Petit, who gave to the Institute a building valued at three lakhs of rupees. The Institute was opened to students in 1888, and the following extract from the opening circular of the Managing Board shows the nature of the instruction given in it:—

"The institution will at present give instruction in machine-drawing, in steam, in mechanics theoretical and applied, in physics, *i.e.*, electricity and magnetism, sound, light and heat. The machine-drawing classes are applicable to all the important industries of the district where machinery of any form is employed. Students will be taught to draw to scale the constructive details of various machines; when thoroughly conversant with these and the principles of theoretical and applied mechanics, in which instruction will be given, they will be able to design machines as occasion arises in daily practice. The principal features of the instruction, as now proposed to be given, are (with which end in view the laboratories have been so designed) to afford students facilities for the experimental study of the relations which the principles taught in the lecture room bear to the problem met with in actual practice. Thus the object to be aimed at is quite as much to train the pupil in habits of exact reasoning and in the clear description of phenomena perceived through their own senses, as to store their minds with information important both from a scientific and a practical point of view. As far as possible, pupils will handle the instruments and apparatus employed, and make experiments with them. It will be perceived, on going through the list of books and instruments, that considerable care has been taken in their selection to keep the cost of instruction as low as possible, so that a day-student, inclusive of fees, will require during the first session R86-8, during the second session R101-14, and during the third session R200-3; and at the end of this period a student with ordinary intelligence ought to be a fair mechanical engineer capable of taking charge of engines or machinery. . . . . The Board has aimed to establish a systematic and enduring plan of classes in those science subjects which bear directly on the industrial occupations of the locality, as well as provide a complete course of progressive study. The endeavour is to cultivate originality, observation, perseverance, and energy, so valuable to the employer and employé."

At first arrangements were made for accommodating 120 students, but the number of applicants for admission was so great that within a month after the classes were opened, it was found necessary to provide for 240 students by duplicating the classes, and even then room could not be found for all who wished to enter the institution.

Attached to the Institute is the Ripon Textile School, with accommodation for two sets of 60 students each. The students of this school learn a series of science subjects, machine-drawing, mechanics, steam treated with special reference to cotton machinery, and also physics with laboratory practice. This school has been gratuitously supplied with a complete installation of the most modern machinery for cotton manufacture by Messrs. Platt Brothers of Oldham; it consists of plant which will receive the cotton-pod as it leaves the field and bring it to a finished piece of cloth; thus the youth's practical training will fit him to enter a cotton mill. In 1889 evening classes were opened for the benefit of persons employed during the day in mills and workshops. For day students the qualification for admission is Standard V, two years below the matriculation standard; from evening students only a knowledge of the three R's is required; the minimum age is 14 for both classes. In both departments the course of study lasts three years, and examinations are held at the end of each year; certificates are given to all who pass, and those who pass in three science subjects and in one practical subject in each session receive full technological certificates; those who obtain two-thirds of the total number of marks in the subjects upon which they have gained these certificates are styled Licentiate of Mechanical Engineering, or Licentiate of Textile Manufactures. The first batch of students completed their course in 1891, when 74 obtained the title of L. M. E. and 15 that of L. T. M. In March 1892 the number of day students was 280, chiefly Hindus and Parsis, and the number of evening students 61, the majority of whom were Europeans.

With regard to mofussil stations, the Local Government was of opinion that while the provision made in Government high schools for teaching drawing and science should, as far as possible, be utilised for the benefit of the public, local effort should be relied upon to establish special technical schools, wherever necessary, with the aid of Government grants. Orders were given that in every Government high school the teacher of drawing should hold a class either in the morning or the evening, out of ordinary school hours, for the instruction of persons already engaged in arts or manufactures. In the absence of any information regarding the demand for such instruction, it was directed that at first no fees should be charged. The Director was also instructed to make arrangements "for the offer of honoraria to competent science lecturers, whether teachers in Government service or otherwise, who are prepared with courses of lectures on scientific and agricultural subjects, and especially on such as have a practical bearing upon any art or industry carried on in the particular neighbourhood. The lecture-room and apparatus of the high school and the assistance of the science teacher of the high school should be placed at the disposal of the lecturer." The annual reports do not show whether these orders were carried out or not; but mention is made of a course of science lectures in the Surat High School for the benefit of the teachers of the primary schools of the neighbourhood.

As in Madras, there are no special schools for land surveying, and this subject is taught only in the engineering and agricultural classes.

A special industrial survey of the province was not considered necessary, as "the Governor in Council possesses a tolerably complete account of the extent, character, and circumstances of local trades in the Presidency Gazetteers and in the annual reports of political agencies and British districts."

175. Poona College of Science—This institution contains three sets of classes, reading for University examinations in Science, Engineering, and Agriculture, and three sets of classes, independent of the University, for training subordinates of the Public Works and Forest Departments. The Science department, which ranks as an Arts college, is very small, the number of students being only

three in 1892 against two in 1887. The attendance in the Engineering Department has fallen from 151 to 47 in consequence of the substitution of the Previous for the Matriculation examination as the preliminary qualification for admission. This decrease in the quantity has been accompanied by a great improvement in the quality of the students. The Principal says: "I have no hesitation in asserting that the difference between the graduates who pass under the new system where the previous examination must be passed by all candidates and those who passed under the old where Matriculation alone was necessary is of the most marked character, and I have no doubt that the Public Works and other departments employing the Engineering graduates will soon recognise the fact." The course of study for the Licence in Civil Engineering has been revised, and an additional examination instituted at the end of the first year; candidates are also required to obtain the first-grade certificate of the Bombay School of Art before appearing at the final examination. At this examination every candidate must take up natural and experimental science, civil engineering, and one of the following subjects: (1) conic sections and the calculus, (2) optics and astronomy, (3) mining and metallurgy, (4) architecture, (5) mechanical engineering, or (6) botany and forestry. The examination in engineering includes surveying, bridges, carpentry and strength of materials, railways, and specification and estimating. Practical instruction is given in surveying, and those who take up mechanical engineering as their third subject go to the workshops for three hours a week to learn the use of tools, a practical examination being held in one of the three subjects, fitting, smith's work, or carpentry. No provision is made for practical training in workshops or engineering works after the completion of the course. One appointment as assistant engineer is given annually to the candidate who stands first at the University examination, and one candidate is appointed as apprentice on probation for one year. During the last five years 85 candidates have obtained the Licence, a number considerably in excess of the total for all the other Universities of India taken together. One candidate obtained the degree of M.C.E.

The agricultural department was formerly unconnected with the University, but in 1889 a "Diploma in Agriculture" was instituted in place of the certificate given by the college authorities. Candidates for the diploma must pass the Matriculation examination before admission to the college, must attend the college lectures for three years, and must pass a University examination at the end of each year. The subjects of the first examination are mathematics, heat, botany, and agriculture; at the second examination candidates must pass in mathematics, chemistry, botany, veterinary science, and agriculture. The final examination includes geology, botany, agricultural chemistry with practical analysis, surveying and levelling, veterinary science, and agriculture, the last subject including soils, manures, implements and machines, crops, irrigation, cattle, physiology and anatomy of farm animals, their management and parasites. In 1891-92 five students of the college passed the first and three the second examination; the first final examination was held after the close of the period under review. The only other institution that sent up candidates was the Baroda College, which passed eleven students at the first examination. "There is a farm and a veterinary hospital attached to the college, in which the students receive practical instruction. The farm is under the Assistant Director of the Agrcultural Department, a graduate of Cirencester. This officer also delivers the lectures on agriculture. The Director of the Department of Agriculture, Mr. Ozanne, stated that Collectors had so far not done much for the students. He does not expect the institution to turn out practical farmers, but to give theoretical knowledge to zemindars and native revenue officials. Candidates who take the diploma have

a preferential claim for offices in the Revenue Department up to R30 per mensem." The agricultural classes contained 19 students in 1892 against 24 in 1887. The Principal says: "There exists much uncertainty as to the future employment of students who take up the subject and proceed to the University Diploma in Agriculture, and until this uncertainty is removed a very large attendance cannot be expected. Some years ago the management of the farm was transferred to the Agricultural Department, and this has not proved advantageous to the students. When the farm was worked by the college, the object with which it was then worked was to exhibit to the students various modes of cultivation and various kinds of crops, and the class instructor had charge of the farm. At present under the Agricultural Department, the farm has been turned into a dairy farm and is worked solely with a view to make a profit from the sale of dairy produce; and, though the students visit the farm every day and see what is going on, they have not the advantage of a farm managed by their own instructor and so arranged that the theoretical lessons of the class-room may be supplemented and illustrated by practical instruction on the farm. If the class prospers and its members increase, it will be perhaps advisable to consider whether the college should not again have the management of its own farm on which the pupils have to depend for their practical instruction."

In the forest department the preliminary test is the Matriculation examination, and the students are nominated by the Conservators of Forests. The course lasts 21 months, including 3 months of practical work, and the final examination comprises mensuration, trigonometry, heat, frictional electricity, the forest laws, field work, botany, forestry, geology and chemistry. The number of students in this class has risen from 9 to 19.

In order to give the students of the three University classes a practical knowledge of geology, they are taken once a year on a geological excursion to some other part of India; on one occasion they went as far as Calcutta, to see the Geological Museum, and visited other places *en route*.

In the industrial department boys are apprenticed for three years, during which time they receive practical instruction in the workshops, and also some theoretical instruction, chiefly mechanics and drawing. The workshops contain a smith's shop, fitting shop, iron and brass foundry, and a carpenter's shed. The workshops execute orders for Government and the public, and the apprentices are employed as far as possible on productive labour. Each boy remains in one special branch of the workshops for the whole period of his apprenticeship,—"a practice which probably depreciates the value of the workshop course as a preparation for the duties of a sub-overseer." The number of apprentices has risen from 76 to 110, the largest number which can be accommodated; many applicants for admission are rejected every year for want of room. At the end of the third year the apprentices are examined, and the best of them are placed for one year in the sub-overseer class, where they receive instruction in surveying, theoretical carpentry, buildings, accounts, drawing, estimating, materials used in construction, and road-making. The first three in order of merit at the final examination receive appointments in the Public Works Department. The Principal states that a large number of the passed apprentices are now found holding responsible positions in charge of engines throughout the Presidency, while some have even gone to sea as steam-boat engineers. The sub-overseer class contained 16 students in 1892 against 21 in 1887. In both these classes the majority of the students are Hindus.

The total Government expenditure on the institution has risen from R76,319 to R90,982, the increase being greatest in the Science and Engineering classes, where it amounts to over R30,000; the workshops cost R19,163 in 1886-87,

but in 1891-92 they returned a small profit to Government. The average cost to Government of each student in 1891-92 was R1,121 in the University classes, R847 in the Agricultural Department, and R572 in the Forest Department. The returns show no expenditure from fees, except in the University classes, where the average is about R120 for each scholar.

There is a small engineering class attached to the Sind College, which also prepares candidates for the post of Sub-overseer in the Public Works Department. In 1892 there were 14 students on the rolls, and during the year two of the students obtained appointments in the temporary establishment.

176. Agricultural Classes, Bombay.—These classes are attached to some of the high schools and to two training schools. There is also a vernacular class attached to the Government farm at Hyderabad, in which students are trained for posts in the Revenue Department. In 1887 this class contained 10 students, all Muhammadans; in 1892 the number had risen to 18. For the high schools a definite course of study is prescribed, lasting two years, and including chemistry, physics, botany, physical geography, geology, agriculture, and surveying; in the first five subjects the course is very elementary, being defined by Macmillan's Science Primers. Candidates may also take up as extra subjects levelling and surveying, physiology, and a higher course of botany. Boys are not admitted to these classes till they have reached the high stage, and are not admitted to the second year-class till they have passed an examination in the subjects of the first year. Boys who join these classes do not read a classical language, and in the second year they cease to study history and geography, so that the final examination of the class may be regarded as a second alternative examination for high schools. The examinations are conducted by the staff of the agricultural department of the Poona College; in 1886-87 70 students passed the first-year and 12 the second-year examination; in 1891-92 the numbers had fallen to 37 and 4 respectively. The number of high schools with attached classes has however increased from 8 to 9, and the number of students in them from 301 to 333. The decrease in the number of passes may perhaps be accounted for by the fact that the number of boys returned as studying agriculture only has fallen from 137 to 18. The returns of expenditure on these classes are incomplete.

177. Veterinary College, Bombay.—In 1886 the hospital maintained by the Society for the Prevention of Cruelty to Animals was taken over by Government, and converted into a Veterinary College. The course of instruction in the college lasts three years, with an examination at the end of each year. Those who pass the final examination receive the diploma of "Graduate of the Bombay Veterinary College." In 1887 there were 69 students on the rolls, but in 1892 the number was only 40. The Government expenditure rose from R20,350 to R23,949, and the income from fees from R800 to R1,993.

178. Industrial Schools, Bombay.—In 1887 there were 13 industrial schools in Bombay with 773 pupils; in 1892 the number of schools was 16, and the number of pupils 1,220. These figures, however, do not include pupils in industrial classes attached to ordinary schools, of whom there were 143 in 1887 and 1,459 in 1892. The most important of the schools, the Victoria Institute and the Poona workshops, have already been described. The Ratnagiri School of Industry contains 150 boys, who receive four hours' instruction daily in general subjects, including drawing, and work four hours at carpentry in the workshop. In Bombay the Apprentices' Home and the Sassoon School are boarding-houses for boys employed in mills and other places, while the latter also contains classes for teaching carpentry, smith's work, etc. The provincial report for 1889-90 contains an interesting account of some industrial schools established by Khan

Bahadur Kadirdad Khan, Deputy Collector of a portion of the district of Hyderabad. "The idea of opening such schools arose in connexion with the Jubilee, and the people of the three talukas subscribed for the support of the schools, which are all private schools managed by local committees under the supervision of Mr. Kadirdad." There are now 5 of these schools with 520 pupils, one of them being a girls' school with 40 pupils. In 1891-92 they received a grant of R8,000 from local funds, this being rather less than half the total expenditure. In the school at Kandiaro the boys learn reading (English or Sindhi), writing, arithmetic, and drawing for three hours a day, and attend the workshops for four hours, receiving instruction in carpentry, blacksmith's work, embroidery, tailoring, pottery, or masonry, the work done being said to be of excellent quality. Fees are paid by those learning English, while the others are admitted free. The Director says: "I have never seen schools conducted with more spirit, or pupils more eager to learn; and after school is over, and on holidays, the boys play games or work at gymnastics like boys at schools in England." The Director himself visited the schools, and his report was printed and circulated to educational officers and school managers to show the nature of the system.

179. Action taken in Bengal.—No general scheme of technical education has as yet been drawn up in Bengal. In 1889 Mr. E. W. Collin, C.S., was deputed to make an industrial survey of the province, but orders have not yet been passed upon the suggestions made in his report, except with reference to the teaching of drawing in secondary schools. Mr. Collin's instructions were as follows:—

(1) To ascertain by local investigation the principal local arts and industries existing throughout the province, and to report in which of them increased skill is attainable, and by what means in each case the necessary improvements can be effected.

(2) To ascertain whether any native industries are of sufficient importance and vitality, and sufficiently centralized, to be likely to benefit by the establishment of schools of instruction in the theory and better practice of such industries.

Mr. Collin reports that, generally speaking, the native industries in Bengal are scattered and unimportant. "Only 8·75 per cent. of the population belong to the industrial classes. Some industries are in a decaying condition, and are not likely to recover until capital can be induced to take them up. Few industries are centralized in towns. Only 13 per cent. of the industrial population of the province live in towns,—a fact which demonstrates clearly how simple the handicrafts and occupations of the people are, and how little they require the superior knowledge and greater capital which are necessary in richer countries. It is out of the question, therefore, to propose any large scheme for the promotion of technical education." The establishment of a technological institute in Bengal, he considers, would be premature, and he does not recommend the establishment of schools for the higher branches of technical education; it would be more economical to send men to Europe to be trained there. With regard to schools for teaching trades, he says: "In India there is less necessity than in England for Government to undertake the teaching of industries. In England the apprenticeship system has, in most trades, disappeared. In India it still exists. Hereditary handicrafts are handed down from father to son. In addition to this, as any industry or business is introduced into the country, the required artisans are privately trained, and thus technical education in this sense is always at work. . . . . It is not advisable for Government to teach special trades, but much may be done to give the educated classes of the country an opportunity of taking a share in all such industrial pursuits as are connected

with machinery or with manufactures in wood or iron," and to encourage the establishment of new industries and manufactures.

Mr. Collin's first recommendation is that a school for mining students should be established. At present the majority of the assistant managers of the coal mines of Raneegunge and Giridih are brought out from England, where they have obtained mining certificates. At a conference of managers of mines it was agreed that it would be beneficial to the mining interest if assistant managers with sufficient training could be procured from the families of domiciled Europeans. Managers would not be unwilling to employ Eurasians and natives, if they were qualified, and were after trial found fitted for the work. The mining industry is rapidly extending, and it is estimated that in five or six years from fifteen to twenty appointments will be available yearly; even at present there is room for fifteen more assistants in two of the collieries represented at the conference; the salaries given to assistant managers range from R100 to R200 a month, and a competent man would have the prospect of eventually becoming manager. The question of the nature of the training was also considered, and it was recommended that the course should be similar to that in England,—three years' training in the school followed by two years' training as apprentice in the mines. It was said that the proprietors of mines would probably give aid in the form of scholarships to a mining school, and would be willing, at least at the outset, to take the boys as apprentices without a premium. The general opinion was that the school should be in the mining district; but Dr. Saise, Manager of the East Indian Railway Collieries at Giridih, who drew up an outline of the requisite course of study, was of opinion that a special school was unnecessary, a great part of the training for civil and mechanical engineers given at Seebpore and elsewhere being equally suitable for mining engineers. Of the three years recommended for the course, the first two might be spent in the classes already in existence, and the special mining course might be given in the third year. Mr. Collin recommended that a separate school should be established in Calcutta, but the Local Government inclined to Dr. Saise's view. Before taking any steps for opening the additional classes, it was considered necessary to make further enquiries regarding the demand for apprentices in coal mines, and as a preliminary to these enquiries, the Director was requested to draw up a scheme of instruction for the proposed school.

For the mills and factories of Calcutta and the neighbourhood the managers and foremen are brought out from England, and Mr. Collin ascertained that men trained in this country, even though of European parentage, would not be readily accepted, and that it would not be possible, in most cases, to give a proper training to apprentices. Marine engineering is already provided for at Seebpore, and other candidates readily find private tuition in Calcutta.

For the training of mechanics and of workers in wood and iron, Mr. Collin recommends that boys should be received as apprentices in the workshops of the State Railways, as they are in the workshops of the East Indian Railway at Jamalpur, and also at Samastipur on the Bengal and North-Western Railway; there is room in the workshops for at least fifty apprentices, and in the same shops there are over twenty appointments that might be held by boys so trained, either Anglo-Indians or natives, besides many appointments on canals and in private workshops, or in tea and indigo factories. Evening classes should be opened for giving the apprentices instruction in drawing, mechanics and other subjects; and similar evening classes should be established in connection with canal workshops, the Kidderpore Dockyard, and in Calcutta and the suburbs, where many boys are being trained as mechanical engineers, both by private

firms and in the municipal workshops. Examinations might be held, and certificates or prizes granted, for both theoretical and practical work. These proposals refer to the training of foremen for factories and workshops; but the same technical schools should be open to artisans and mechanics, and in addition new industrial schools should be established for their benefit; special trades should not be taught, but the course should include all sorts of manual work in wood and metal, while the theoretical course should include drawing, mathematics, elementary mechanics, and science. In three Municipalities industrial schools have already been established, and other Municipalities should be encouraged to open similar schools, the pupils of which should pass on to the Government schools for a higher course of training. The establishment of industrial branches of primary or secondary schools is not recommended, as they are likely to interfere with the regular educational course, and often become mere recreation classes. The question of the future prospects of trained artisans is touched upon in the report, but it is clearly impossible to give very definite information on this point. Precautions against the undue interference of industrial schools with private enterprise are suggested, and advances to passed students to enable them to buy tools and start workshops are recommended. In order to encourage the establishment of new industries and manufactures, Mr. Collin suggests that a larger proportion of the stores required by Government should be purchased in India, and that the local museums should be utilised for bringing manufacturers and purchasers of Indian art ware into communication with each other.

In order to improve the existing industries the first requisite is a school of design, or special classes in which design and industrial drawing are taught. Such classes should be opened first in Calcutta, and afterwards at other centres, where various industries, such as furniture-making, braziery, textile fabrics, stone-carving and others could be taken up. Lithography and wood-engraving should also be taught, and, as practice for the students, working patterns and designs could be lithographed and circulated in industrial centres. Two of the industries of Bengal might be improved and extended by the establishment of special schools or classes; basket and straw-plaiting work might be taught in primary schools in the districts where this industry is carried on; it would not be necessary to teach ordinary work, but instruction might be given in all kinds of fancy braids and ornamental basketware and matting. Ornamental matting is now brought from Japan and sold in Calcutta, where it could be equally well made with the help of a little instruction. At Berhampur, the centre of the silk industry in Bengal, a weaving school should be established: this industry is gradually dying out, but with improved methods it might revive.

Regarding Mr. Collin's recommendation that special trades should not be taught in industrial schools, the Director of Public Instruction says: "This is in precise conformity with the views I have long held as to the general plan on which local industrial schools should be started. The particular trades of the carpenter or the blacksmith, if they are to be taught by artisans, even by exceptionally selected artisans, of the ordinary indigenous type, and if they are not to go beyond the processes of the bazar, nor to use any tools but those of the bazar,—such trades are far better taught under the indigenous system of apprenticeship than they ever can be in a school. What we should aim at in an industrial school is to train boys to the use of improved tools and better methods of work than they will find outside. Men so trained will be able to turn out better finished, and therefore more valuable, products; and there is no danger that after leaving the school they will

fall back, if they can possibly help it, upon the inferior implements and processes of the bazar workman. If they cannot themselves find the necessary capital for the improved tools, they will take service with those who can. When I speak of improved tools, I refer not only to hand but to machine tools. There is a large number of hand tools which country workmen never use; and it is the employment of these which gives the superior finish that we find in the work of European workmen, and of artisans who have come under European training, such as Chinese carpenters and the men employed by such firms as Messrs. Burn & Co. or Messrs. Lazarus & Co. A good workman of this stamp can earn so much more than a bazar carpenter or blacksmith that he will not willingly decline to a lower range of work. I am not of course assuming that in a local industrial school he will find anything like the style and variety of work that a great Calcutta firm turns ont, but it will be in the same line, and the instruction that he receives will enable him to secure more profitable employment, while it also tends to raise the standard of skill among the artisan class. Secondly, there is the whole class of machine tools, which I hope to see introduced into all the more important industrial schools. Steam will not always be necessary, as the motive-power can very well be supplied by cooly labour; though if a small steam-engine could be added, so much the better. It is most desirable to pave the way for the general employment of these tools in the workshops of the country; and this can best be done by training up a number of men familiar with their use. Further, we are now in the flowing tide of the employment of capital, English and Indian, upon manufactures and other remunerative enterprises in India; and it becomes a matter of extreme importance to facilitate its employment by the provision of skilled labour in sufficient quantity. It will of course be understood that we do not aim at training operatives in particular trades, such as cotton-spinners, jute-weavers, or paper-makers. What we require first of all is a supply of trained mechanics, like the 'mill-hands' of factories in former days in England, able to keep in working order, to set up and repair, the necessary machinery, and to design and make the thousand and one small contrivances in wood and iron that enter into the daily requirements of a factory in full work."

Mr. Collin recommended that industrial schools should be established at Burdwan, Rajshahye, and Chittagong, but the Director considered it advisable to wait for the local demand to declare itself. "There are clear indications that District Boards as soon as they see the lines marked out for them, and as soon as they have the necessary funds, will devote them to the establishment of industrial schools almost before any other object." Schools established by District or Municipal Boards are more likely to succeed than others, since these bodies are able to give orders for the execution of work of many different kinds; variety of work is essential for the proper training of the boys, and in the absence of outside orders for general work, there is a danger that a school may fall back upon the manufacture of some special article for which there is a demand, since industrial schools depend largely upon the money realised by the sale of the articles manufactured. With regard to the weaving school proposed in the report, the Director was of opinion that the project should be recommended to the Moorshedabad District Board, and that a grant should be given by Government if the school was established.

Final orders have not yet been given on any of these proposals, but two of them are now under consideration: it is proposed that a boarding-house should be established at Kanchrapara to provide accommodation for apprentices to be trained in the workshops of the Eastern Bengal State Railway, and information is being collected as to the system pursued in the East Indian and

Burma Railways. An officer on special duty in connection with sericulture at Berhampur has been directed to prepare a scheme for the establishment of the proposed school for teaching silk weaving. The Local Government has promised to encourage the establishment, by District Boards and through other agencies, of local schools of technical instruction, wherever an effective demand for them may arise; "but it is to the maintenance of the Calcutta School of Art, and of the Seebpore Engineering College, on the highest possible scale of efficiency, and to their future development on various, if as yet unforeseen, lines, that the Lieutenant-Governor is chiefly inclined to look for the promotion of technical education."

The recommendation that agricultural and veterinary classes should be attached to high schools is not touched upon in the Resolution of the Government of Bengal; and no such classes have been opened. The course of instruction in high schools is so completely governed by the Entrance examination that there would be very little chance of inducing boys to take up an additional subject not recognised by the University.

Although no additional schools for teaching land surveying have been opened, the number of persons receiving instruction in that subject has nearly doubled. In the Dacca Survey School the number has risen from 87 to 268, and the demand for passed students is so great that not one has failed to obtain employment. In the three schools the number of students is now 417 against 210 in 1887, and the number of successful candidates at the final examination 111 against 60. In all the schools the course of instruction lasts two years, and students are not promoted into the second-year class till they have passed an examination in the work of the first year. The average cost of educating a student is R36, of which one-third is met from fees, and the remainder from provincial revenues. The total expenditure from provincial revenues last year was R10,214 against R6,369 in 1886-87.

180. Seebpore Engineering College.—In 1887 a Committee was appointed to revise the course of instruction pursued in the Seebpore College, and generally to enquire into the methods by which the College might be better adapted to the purpose of supplying a sound technical education for natives of Bengal. A brief summary of the proposals of the Committee is given below, with the action taken upon them by the Local Government and the University. The first proposal was that the qualification for admission should be raised; the Entrance examination is the test prescribed by the University for those who wish to obtain the Licence in Engineering, and the Committee considered the standard of this examination too low in English and Mathematics; they therefore proposed that the Entrance test should not be considered sufficient, unless the candidates obtained a much higher percentage of marks in these two subjects than the minimum fixed by the University,—a proposal which was accepted by the Local Government. In order to encourage students with higher initial qualifications to enter the college, it was decided that the maximum age for admission should be raised from 19 to 21 and 23 for those who had passed the First Arts and the B. A. examination respectively, and that the ten admission scholarships should be given to the candidates who had passed the highest University examinations. As a further inducement to graduates to enter the college, it was proposed that the course of study should be reduced by one year in their case, and this has recently been sanctioned by the Senate: these concessions, however, apply only to graduates taking up the Science course at the B. A. examination. The Committee recommended that the course of study should be reduced from four years to three, that the practical work in the shops should be postponed till the end of this course, and that the First Examination in Engineering should be abolished;

the Government of Bengal accepted the second of these proposals, and referred the others to the University, but the Faculty of Engineering resolved "That in consideration of the fact that the adoption of the proposals would necessitate the postponement till the fourth year of all practical work in the only institution that sends up candidates to the Engineering examinations, and that therefore the University degrees and Licences in Engineering would be conferred on persons who had received no practical training whatever, the Faculty were unable to recommend the adoption of the proposals." The next proposal of the Committee was that certificates should be given by the college authorities to all the engineer students who completed the course of study, whether they passed the University examinations or not, and that all who obtained these certificates should be allowed to go through the course of practical training prescribed for graduates in Engineering; this proposal received the assent of the Local Government. The Committee also recommended that the workshops attached to the college should be abolished, that the manual training of the mechanical apprentices should be provided for by apprenticing them to outside shops and dockyards, and that the Engineer students should be attached for six months to a railway workshop, and afterwards be handed over to the Public Works Department for eighteen months to receive practical training on works in progress. The reasons for these proposals are shown in the following extract from the report of the Committee:—

"The value of the training which a pupil receives by going through this course of manual instruction depends largely upon the organisation of the shops in which he is trained and upon the character of work executed in them. The present conditions under which the Public Works Department workshops are maintained at Seebpore appear to the Committee to be such as reduce the value of the training imparted through their agency to a very low standard. These workshops are no longer required by the Public Works Department, which can get its work done more economically and with greater convenience in private firms. The orders they receive are not only insufficient to keep the machinery employed, but are for work of the most ordinary description and totally unsuited for the efficient training of skilled mechanics."

Although the demand for skilled labour has not fallen off, the number of boys who enter the lower department of the college with the object of becoming skilled mechanics has decreased considerably, and this is regarded by the Committee as an indication that the training received in the workshops holds a very low place in the estimation of the public. Mr. Slater, a Member of the Committee and a Professor (now Principal) of the College, agreed with the Committee that the workshops in their present form were practically useless, but considered that the proper remedy would be to transfer the control of them to the Education Department. The Director of Public Instruction was strongly opposed to the suggestion that the workshops should be abolished, mainly on account of the uncertainty whether outside shops could provide the required number of apprenticeships, or would care to take apprentices ignorant of tools. He also supported the proposal that the shops should be transferred to the Education Department, and with reference to the consequent reduction in the amount of work to be done for the Public Works Department suggested that the shops should manufacture tools and machinery for use in local technical schools. The Local Government concurred in the views of the Director, and in 1891 orders were given to the Public Works Department to arrange to send a sufficient quantity of work to the shops to keep them regularly and fully employed. Even this was not considered sufficient to secure a proper manual training for the apprentices, for "when the Public Works Department has a heavy piece of work to put through the shops, the students have to stand aside and look on while others do the work instead of securing the practical advantage of taking part in it themselves." To meet this difficulty orders were given for the purchase of six lathes, four

shaping machines, and two planing machines, for the exclusive use of the students, at a total cost of R12,000, and these have now been erected. A model room has also been built, and a testing room will shortly be added, with the machinery necessary for testing the strength and the breaking-strain of materials of various kinds, one of the most important subjects with which an engineer has to deal. Sanction was also given for the appointment of one European foreman and four native mechanics as instructors of the students, in addition to the existing staff. The prospects of the students have been improved by the guarantee of four appointments a year in the Upper Subordinate grade of the Public Works Department to be given to graduates in Engineering, in addition to the appointments to the grade of Assistant Engineer, one and two of which are given in alternate years. A further proposal of the Committee that Lecturers in Agriculture and Agricultural Chemistry should be appointed with the object of training students for the callings of managers of private or wards' estates, or tahsildars in tracts under Government management, is still under the consideration of the Local Government.

The question of the training of mining engineers was referred to the University in 1891-92, and the Faculty of Engineering recorded the opinion that it was not desirable to introduce an alternative course into the examinations for degrees, but that the necessary theoretical and practical instruction should be given to students after passing the B. E. or L. E. examination, and that certificates should be given by the College authorities. It was afterwards decided to make Mining Engineering one of the subjects for the examination for Honours in Engineering, an examination which is open only to those who have passed the B. E. or L. E. examination. At this examination candidates have the option of taking one or more of the following branches, Civil Engineering, Mining Engineering and Electrical Engineering; this examination has been included in the University regulations for many years, but no candidate has ever appeared for it, and the course of study has only recently been defined. Mechanical Engineering is not included in the course, but this subject has never been taken up for the lower examinations, and has never been taught at Seebpore.

The number of students in the Engineer classes has increased from 44 to 87 during the last five years, but only a small number complete the course and obtain the University degree or licence, many of the students obtaining appointments before appearing at the examination. During the five years 21 students have obtained the licence, and 10 the degree of B. E.; the examinations are the same for both, the only difference being in the preliminary qualification, which is the First Arts Examination in the case of candidates for the degree. The new rules above referred to have slightly reduced the number of candidates for admission, but have improved the quality; of 28 students admitted in 1892, only 4 had passed no examination higher than matriculation; only 2 were graduates, but the number of these is likely to increase in consequence of the remission of one year of study. In the non-University classes also the number of students has increased, from 102 to 157, but the number of Europeans and Eurasians has fallen off.

The expenditure on the college has risen from R67,831 to R92,801, and the Government expenditure from R62,757 to R83,042, the balance being met from fees. These figures do not include the cost of the boarding establishments, of which there are two, one for Christians and one for Hindus.

181. Calcutta School of Art.—In this institution students are trained as skilled general draughtsmen, engineering draughtsmen, architects modellers, wood-engravers, and lithographers. The following are the principal stages of instruction:—(1) Elementary Linear Drawing; (2) Higher Free-hand Drawing;

(3) Freehand Drawing in Light and Shade; (4) Geometrical Drawing, including Architectural and Machine Drawing; (5) Painting, elementary course; (6) Painting, higher course; (7) Modelling; (8) Lithography, to which have recently been added Photography and Etching; (9) Wood-engraving. Metal-chasing and wood-carving were added to the course a few years ago, but the number of students was not large, and when orders were given for the abolition of free studentships, none of them were willing to enter as paying students, so that the classes were closed. Modelling has always been practised in the school, and recently a series of life-size figures of typical Indian races has been executed by the students for the Imperial Institute. In 1887 a revised course of instruction was drawn up for each class, and a system of examinations instituted, the highest grade of certificate qualifying the holder for an Art teachership; of the four students who obtained this certificate at the first examination, three at once obtained posts as teachers in Government schools. Four annual scholarships have been established by the Public Works Department for competition among the students of the architectural and mechanical drawing classes; the successful students, after completing the prescribed course in the school, undergo one year's training in the Chief Engineer's office. Arrangements have also been made for the admission of students as probationers in the Drawing Office of the Survey of India. Attached to the school is an Art Gallery, but for some time no additions have been made to it for want of sufficient accommodation. Since the close of the period under review the school has been removed to more commodious quarters, and this, combined with the increased demand for teachers of drawing, and the impetus given to local art by the formation of the Calcutta Art Society, is likely to cause a large increase in the attendance. The number of students has risen from 152 to 181 during the five years, and the Government expenditure from ₹17,405 to ₹27,352. The students pay ₹3 a month as fees. In the opinion of the Local Government the time has not yet come for the addition of a School of Design, but if the proposed school for silk and cotton-weaving is established, it will look to the School of Art for its designs, and as technical schools and classes are opened, the demand for special classes for design will make itself gradually felt. A regular course of instruction in design, divided into two stages, elementary and technical, has been drawn up, and from time to time work of this character is done in the school, but it is not sufficiently continuous to admit of the formation of regular classes.

182. Industrial Schools in Bengal.—The number of these schools has risen from 15 to 18, but the attendance has fallen from 792 to 672. Three of the schools are Government institutions, but only one of them is of any importance, the other two containing only 5 pupils; the Ranchi School is attended only by Christian boys belonging to the aboriginal races of Chota Nagpore; they are taught carpentry and blacksmith's work, besides a little drawing. Three schools are managed by District Boards, six are aided, and six are unaided. From Mr. Collin's report it appears that the District Board school at Rungpore is the only one that has been started on a proper system; this school contains two classes; in the upper class all the boys have read up to the third class of a high school; they are taught drawing and mathematics for three hours a day, and spend five hours a day in the workshop, learning carpentry and blacksmith's work alternately. The lower class consists of the sons of artisans, who are trained only in the workshop. There are very few local carpenters or mistris, so the school supplies a real want; but the pupils of the upper class are chiefly the sons of foreigners to the district, Brahmins, Kayasthas, and Muhammadans, the local people being too orthodox to send their sons at present. The school is under the supervision of the District Engineer, and the theoretical instruction is given by subordinate officers of the District Board. The tools and materials are supplied

by the Board; half the proceeds of the sale of the furniture made in the school go to remunerate the boys, and half to form a fund for their benefit. All the other schools are merely schools for teaching trades, and in those described by Mr. Collin the teaching is generally inefficient.

In a few instances District Boards have established scholarships to enable boys to go through a course of training in the Seebpore College, some of these scholarships being given to the best students of local industrial schools.

183. Action taken in the North-Western Provinces.—Nothing definite has yet been accomplished in these Provinces. The opinions of the officers consulted on the questions raised in Mr. MacDonnell's Note were received early in 1888, and were reviewed by Sir Auckland Colvin in a Minute, dated the 8th September 1890. The conclusion arrived at in this Minute was that the scheme to be adopted should follow the lines of the scheme already adopted by the Bombay Government. "What seems mostly needed at present, in these Provinces, in the matter of technical education, is the provision of greater facilities for a somewhat higher class of training in those new mechanical industries which have been introduced by British capital into these Provinces, and in regard to which, though there may be a growing demand for skilled labour, there is no indigenous source of supply. We are not, however, in a position at present to say what is the effective demand for men competent to deal with machinery, and familiar with at least the lower forms of engineering; and this is a point on which further inquiry is necessary. Assuming, however, such a demand to exist, the problem before us would be to decide—

(1) what direction such training should take;
(2) how best to secure it; and
(3) the sources from which the necessary funds could be obtained.

"With regard to the first point: what would seem mostly to be required are facilities for gaining a competent theoretical and practical knowledge of the more subordinate grades of mechanical engineering, such as is necessary to a foreman mechanic, more specially in connection with the steam engine, the railway workshops, and the iron foundry; and also of the processes of cotton-spinning as employed in the mills established in these Provinces. With regard to the second point, there exists at Roorkee a Government Engineering College and Government Workshops, and it seems probable that we have here, subject to such further development as may be found necessary, the nucleus of the instruction necessary." In order to obtain the necessary information regarding the demand for trained men as foremen mechanics, and the best mode of training them, a Committee was appointed, with authority to depute one or more of its members to Calcutta, Bombay or Madras, in order to see the practical working of the schemes started in other provinces. The results of the enquiries of the Committee regarding the demand for trained mechanics are not very encouraging; the number of mills and factories is small compared with Bengal and Bombay, and Europeans are exclusively employed in all the higher posts. "The spinning or weaving masters imported from England are conversant with the latest developments of the particular industry pursued in the factory, and possess that happy combination of practical and theoretical knowledge which is imparted by the system of apprenticeship obtaining in the great manufacturing centres of Lancashire and Yorkshire. The saving in the wages bill which might result from the employment of persons trained in this country is, it is said, unimportant compared with the necessity for keeping the factory in the highest state of efficiency and getting the largest outturn from a given quantity of material and a given number of machines." There is, however, reason to believe that the employers of factory labour in Cawnpore would give a fair trial to lads trained in India.

In the railway workshops, as in the mills, the natives employed are almost wholly illiterate, though often very skilful workmen. The assistant foremen are Europeans or Eurasians, generally the sons of employés who have been trained as apprentices in the workshops, but usually without any theoretical instruction. The Committee considered that it would be to the advantage of the railway companies, if a mechanical apprentice class were established at Roorkee, to require the sons of employés to attend this class before entering the workshops, but the experience gained in Bengal tends to show that there is not much probability that the railway companies would take the same view of the matter. In cotton presses, indigo factories, municipal water-works, etc., there is some demand for trained foremen, and some natives of Bengal and Bombay have been appointed, in the absence of men trained locally. In order to provide for the training of men of this class, the Committee recommended that a "mechanical subordinates" class should be established at Roorkee, similar to that of the Seebpore College. The qualification for admission to this class should be the Middle English examination, and the limits of age 14 to 16 years; the course of instruction should last three years, and should be both theoretical and practical, the practical instruction being given in the canal foundry, and the theoretical work being similar to that of the existing lower subordinate class; the number of admissions to the class should at first be limited to 12 a year. The Committee proposed several other changes in the rules of the Roorkee College, of which the following are the most important:—(1) the transfer of the College from the Public Works Department to the Department of Public Instruction; (2) the addition of instruction in the use of tools to the course prescribed for all the classes; (3) the extension of the course of theoretical training in the engineer class from two years to three, the addition of freehand drawing to the course, and an extension of the present course in physics and chemistry; (4) the improvement of the laboratory and model room, and the erection of a small workshop; (5) the offer of practical training to all who complete the course and pass the final examination in the engineer and upper subordinate classes; (6) the abolition of most of the special examinations for admission to the various classes, and the utilisation of Departmental and University examinations. One of the proposals under the last head is of special importance in consequence of its bearing upon the question of the bifurcation of studies in high schools; the Committee proposed that native candidates for admission to the upper subordinate class should be required to pass the alternative examination which is about to be introduced by the University, and to take drawing as their optional subject. If this proposal is adopted, the new examination will at once acquire a real value in the eyes of both teachers and students, and will be taken up in some of the schools under private management, which otherwise would confine themselves to the ordinary Entrance examination. The institution of this alternative examination was also included among the proposals of the Committee.

Before giving the other proposals of the Committee it is necessary to refer to an earlier attempt to introduce some form of technical instruction into the province. In July 1887 the Oudh Talukdars forming the British Indian Association offered to give a sum of R500 a month in perpetuity for the establishment of a "Jubilee School of Industry" at Lucknow, and a building roughly valued at a lakh of rupees. The Government assured the Association of its sympathy and support, and asked them to nominate a Committee for the consideration of the subject and to draw up a working scheme. The Committee that was formed obtained the promise of additional subscriptions amounting to R17,440 a year, and in the following December proposed rules regarding the constitution and management of the Association for the encouragement of technical education, and the establishment of a School of Arts and Industries at Lucknow, but apparently did not attempt to formulate a definite scheme of

technical instruction to be given in the school. No suggestions appear to have been made by the Local Government or the Education Department before the report of the Committee was published, and the money subscribed has not yet been utilised.

The next proposal of the Committee was that a School of Art should be established at Lucknow, not at Agra, as suggested in the Note on Technical Education. The school, in the opinion of the Committee, "should not be a mere drawing school, but should have a distinctly technological character. The instruction given should lead up to design in its application to the handicrafts of the country, and industrial art workshops on the model of those successfully established in Madras are indispensable." The Committee did not ascertain whether the British Indian Association would accept a School of Art as partly meeting the objects they had in view, but they reported that the building offered by the Association did not furnish suitable accommodation for any sort of school or college. With regard to industrial schools the Committee recommended that a school on the lines of the Railway Technical School at Lahore should be established at Lucknow or Allahabad to provide a suitable education for children of the artisan class, especially for the children of artisans employed in the railway workshops. "By 'suitable education' is meant an education in which instruction in reading, writing, and arithmetic, elementary mechanics, physics, and drawing is given in strict subordination to manual training in a workshop under skilled instructors." A school of a similar kind, though more elementary, should also be opened at Roorkee for the children of the artisans employed in the canal workshops and foundry, with morning or evening classes for the benefit of the apprentices. If these schools were established by Government, and a definite course of instruction drawn up, it might be expected that municipalities, religious and charitable societies, and private persons would establish similar schools with aid from Government under the grant-in-aid system. Aided industrial schools should be inspected by the Superintendent of the School of Art, one of whose first duties would be to draw up standards of drawing and manual instruction.

The Committee also proposed that an agricultural class should be opened at the Government farm near Cawnpore; the subjects taught should be some of those included among the optional subjects at the school final examination, and boys should be admitted to the class after passing in the compulsory subjects of that examination. The subjects recommended are (1) the principles and practice of agriculture; (2) mensuration and surveying; (3) botany; (4) elementary physics, chemistry, and geology. Posssibly, elementary veterinary science might be added.

The remaining proposal of the Committee that a central training college for teachers should be established belongs to a different section of this Review.

Final orders were not passed on any of the proposals of the Committee before the end of the period under review, but in the resolution on the report for 1891-92 it is stated that an industrial school was opened at Lucknow on the 1st November 1892, and that, if suitable accommodation could be arranged for, an agricultural school would be opened early in 1893. Sufficient funds were not available for the establishment of a school of art and a training college. The recommendations regarding the Roorkee College had formed the subject of a reference to the Government of India, and were still under consideration.

184. **Thomason Engineering College, Roorkee.**—Some account of this institution has been incidentally given in the preceding paragraph; the following additional information is taken from the appendix to the report of the Committee. The College is under the control of the Public Works Department,

and does not submit any report to the Education Department, so that no information regarding it is found in the annual reports.

The engineer class is open only to statutory natives of India between the ages of 18 and 22, of whom 16 are admitted each year. Three scholarships of the value of R50 a month for two years are awarded on the result of the examination, but boys of European descent, pure or mixed, are ineligible for them. Boys of this class are required to pay R10 a month as fees, and R14 a month for quarters, while native students pay no fees, and only R5 a month for rent; in other respects also the expenses are less for native students than for Europeans. The course lasts two years, and consists of mathematics, civil engineering, engineering drawing, surveying, experimental science, and Hindustani, while at the final examination marks are also given for physique and sports. The lecture system has not been introduced; the students work up their books and apply for information when in difficulty. Two grades of certificates are given on the result of the final examination, and the following appointments are guaranteed: four and five appointments in alternate years as assistant engineer; one appointment as overseer, first grade, and one as overseer, second grade; besides this two of the successful candidates receive a year's training on works with travelling allowance, one on a salary of R100, and one without pay. The upper subordinate class is limited to 24, of whom 12 are British soldiers, 6 English civilians, and 6 natives; a different entrance test is laid down for each class but the college course is the same for all; it lasts two years, and comprises the subjects abovenamed, though in each subject the standard is lower than, in the engineer class. Of those who pass, 15 are appointed overseer apprentices in the Public Works Department, preference being given to the first eight soldiers on the list. After a year's training on works during which the soldiers receive R80, the English civilians R60, and the natives R40 a month, they are appointed overseers of the first, second, and third grades respectively. Until recently the number of guaranteed appointments was 25, and no limit was fixed to the number of students in the class. During the course of theoretical work the soldiers receive their military pay, ration money, and R11 a month, and are provided with free quarters: the English civilians also have free quarters and tuition, and there are three scholarships of R25 and three of R30. For the native students there are three stipends of R10 a month and the others pay R3 for tuition and quarters. In the lower subordinate class the number of admissions is usually 42, 32 places being reserved for men belonging to the North-Western Provinces and the Punjab, and the remaining 10 for those from local administrations. There are two classes known as A and B, the former being admitted by competitive examination, while the B men are artisans recommended by Executive Engineers, their number being limited to 12. The first 5 A students and all the B students get stipends of R10 a month, and all the others R5 a month, in addition to free quarters and tuition. The course lasts a year and a half, and includes the elementary parts of the subjects prescribed for the higher classes. No appointments are guaranteed to the students of this class. In addition to these classes there are two military survey classes, one for 8 British soldiers, the course in which lasts seven months, and one for native soldiers, in which the course lasts ten months; in this class there is no fixed number, but on an average 19 men have qualified each year: in both these classes the subjects of study are military surveying and reconnoissance.

The annual returns show 180 students in 1892 against 158 in 1887, and an expenditure of R1,43,739 against R1,26 041.

185. Other Special Schools in the North-Western Provinces.—The returns show that three industrial schools were in existence in 1892 with 148 pupils against 2 schools in 1887 with 190 pupils. No information is given regarding

them in the provincial reports, but as all the pupils are Native Christians, it is probable that they are missionary institutions; in 1891-92 they received R1,500 from local funds, the rest of the expenditure being met from subscriptions, endowments, etc.; no fees were received from the pupils.

In 1887 there were 45 patwari schools with 2,460 pupils; in 1892 these schools are not separately shown, but apparently the number was unchanged, while the number of pupils had slightly decreased. These schools are not under the control of the Education Department, though they are Government institutions; land surveying is the principal subject of instruction.

186. Action taken in the Punjab.—At the end of 1886 a Committee was appointed to consider the recommendations contained in the Note, the members of which formed themselves into three Sub-Committees to consider the question of technical education as applied to (1) professional occupations, (2) agriculture, (3) industrial, mechanical, and artistic pursuits. The first of these questions has already been dealt with, as well as those proposals of the other sub-committees which refer to the course of study in ordinary schools. The proposals of the sub-committee on agriculture were (1) that a Professor of Agricultural Chemistry and a Professor of Zoology and Botany should be appointed, whose duty it should be "(*a*) to observe and investigate the conditions of agriculture in Northern India; the resources available for its improvement; and the methods which, under existing local conditions, are most likely to produce the successful utilisation of these resources; questions regarding the health and disease of plants and cattle, etc., etc.; (*b*) to train teachers in special subjects for employment in secondary schools; (*c*) to prepare text-books or superintend the preparation of text-books." For financial reasons this proposal was not carried out. (2) That instruction in surveying, book-keeping, etc., should be given in zamindari schools; this proposal was accepted by the Local Government, but in the following year it was abandoned on the recommendation of the Educational Conference, when these schools were placed on the half-time system, and the instruction restricted to reading, writing, and native methods of arithmetic. (3) That an agricultural college and an experimental farm should be opened; the consideration of this proposal was postponed. The recommendations of the third sub-committee included (1) special measures for the education of artisans throughout the province; (2) the organisation of technical schools in connection with the railway workshops at Lahore and Rawalpindi; (3) the extension of the scope and functions of the Mayo School of Industrial Art, and the strengthening of the staff. All of these proposals have been more or less completely carried out; special standards for industrial schools have been drawn up, the course of study including, in addition to reading, writing, and arithmetic, wood-working, drawing, and practical geometry; other handicrafts may be substituted for wood-working, but as yet no standards have been prescribed. Industrial schools are classed as primary and middle, and in the middle department English may be taken as an optional subject. Both results grants and staff grants are offered to schools under private management teaching the prescribed standards, and scholarships have been created to be awarded on the result of the lower and upper primary examination of industrial schools; some of these scholarships are tenable in upper primary schools, some in the Railway Technical School, Lahore, and some in the Mayo School of Art. All the industrial schools of the province have been placed under the supervision of the Principal of the Mayo School, who conducts the annual examination in drawing and handicrafts, the standards in which were drawn up by him. This has necessitated an increase in the staff of the Mayo School, as recommended by the Committee. Of the two technical schools proposed by the Committee only one has been established, and

this on a much less expensive scale than was suggested. The Railway Technical School at Lahore was opened early in 1889, to provide a suitable education for the sons and other near relatives of artisans employed in the railway workshops, and within three months after its establishment there were 184 boys on the rolls—120 Muhammadans, 47 Sikhs, and 17 Hindus. The school contains primary and middle departments, and will eventually have a high department also; in the lower primary department the course of study is the same as in ordinary schools, with the addition of wood-working and drawing; in the upper primary department the general instruction is restricted to the three R's and coloquial English, while practical geometry is added to the special subjects of the lower classes. In the middle department the course is the same, but more time is devoted to the technical part of the work. At first the school was held in a temporary building, the accommodation in which was insufficient to admit of instruction being given in more than one handicraft. A new building has now been erected at a cost of R45,000, and was occupied in January 1892; it is said to contain accommodation for five or six hundred scholars, and to be capable of further extension, should this prove necessary. In future all boys will be taught wood-working in the lower primary department, and after passing that stage will be taught the special handicraft they intend to follow. On the opening of the new building the number of students increased to 270, all but 6 being the sons of artisans. The original scheme included morning or evening classes for apprentices, but apparently these have not yet been opened, probably because the apprentices are too illiterate to profit by special instruction. The total cost of the school in 1891-92 was R6,309, all of which was met from provincial revenues. The special features of the institution are thus described by the North-Western Provinces Committee: "Compared with the Victoria Technical Institute, the Seebpore mechanical apprentice class, or the Roorkee sub-overseer class, the Lahore Technical School presents the following points of difference:—(1) it is comparatively inexpensive; (2) it is meant to train up artisans and not foremen or overseers; (3) the literary instruction is confined to the elements of an ordinary general education, with a little elementary science. Compared with the Ratnagiri Technical School, the Poona Municipal School of Industry, or the Madras Anjuman, the Lahore school is distinguished (1) by the importance given to drawing; (2) by the avoidance of any attempt to make the workshops pay, or to manufacture saleable articles. The manual instruction is strictly disciplinary. The school does not turn out workmen. It gives instruction preliminary to the practical training of the real workshop."

The returns for 1886-87 show 6 industrial schools with 222 scholars, but some of these have been closed, and others do not come up to the standard required by the rules, and are not therefore recognised by the Department. Besides the school already named, there are two schools with 173 pupils both maintained by municipalities, but as yet none of the pupils have reached the upper primary standard in the special subjects. It was expected that the publication of the rules regarding aid to industrial schools would induce the managers of some schools to add drawing and a handicraft to the course of study, but in the last report the Director says: "The difficulties and the expense especially on the side of the handicraft are very considerable; and it is more and more forcing itself upon me that *Night Schools*, with provision for elementary general knowledge and drawing, are what we specially need for the illiterate working youths of our cities." On the other hand the North-Western Provinces Committee expressed the opinion that night schools were not suited to the climate and social conditions of India; this opinion appears to be based upon the difficulty experienced in securing regular attendance in night schools for apprentices in railway workshops, but, judging from the schools of this class for

Europeans in Jamalpur, I think it is probable that if the instruction given were of a technical character, and calculated to make the students more efficient workmen, the students would attend much more regularly than they do now.

The art industries of the Punjab have been fully reported upon by Mr. Kipling, Principal of the Mayo School of Art, but the Local Government did not consider a detailed industrial survey of the province to be necessary in consequence of "the small degree to which existing industries are centralized, the simple nature of the handicrafts, and the small capital employed."

187. Mayo School of Industrial Art, Lahore.—Regarding this school the North-Western Provinces Committee reported as follows:—"The industrial side is not so strongly developed as in Madras; but design and decoration, in their application to particular industries, are well taught. The drawing scheme is not so elaborate and systematised as in Calcutta and Bombay, nor are definite standards prescribed and certificates granted. Madras endeavours to turn out art workmen: Bombay and Calcutta to produce drawing masters: the Lahore school pays more attention to design and architectural decoration." During the last five years the number of students has increased from 82 to 134, including 13 students in the Engineering Department, which was transferred from the Oriental College in 1888. The classification of the art students is as follows: in the first division 48 boys learn elementary drawing, of whom 20 also learn wood-working; in the second division 35 boys learn geometrical, perspective, architectural, and model drawing, drawing from nature, light and shade, and elements of colour, 25 doing also wood-working; in the third division 30 students continue the work of the second division to a more advanced stage, and learn besides constructive and decorative design and lithography, 12 of them also learn wood-working, and 13 surveying; in the fourth division 8 students learn applied design and modelling in clay and plaster. Surveying has recently been added to the course, and is extremely popular; this subject is not taught in any other schools in the province. As in Madras, it has been found necessary to open classes for teaching the elements of general education; most of the candidates for admission who have received any literary education have no idea of drawing, no knowledge of any craft, and no taste for art, and generally leave after a short attendance. On the other hand, the sons of artisans are generally wholly illiterate, have been subjected to no regular discipline, and are wanting in punctuality, neatness, and regularity. The staff of the school has been strengthened by the appointment of a Vice-Principal and some additional teachers, and a new wing has been added to the building to provide accommodation for the increased number of students.

The Engineering Department prepares students for the Engineering examinations of the Punjab University, but no candidate has yet obtained the licence in that subject. The preliminary qualification for admission to the final examination for the licence is the Intermediate examination, but candidates who have only matriculated are admitted to the first examination. The course of study for the final examination lasts two years, and the practical course is limited to surveying and levelling. Only 3 candidates have passed the first examination during the five years, while none have appeared at the final examination.

The total expenditure amounted to R15,181 in 1891-92, against R13,523 in 1886-87; almost the whole of the expenditure was met from provincial revenues, the fees amounting to R42.

188. Lahore Veterinary College.—In this institution students are trained as veterinary assistants; the course lasts two years, and includes veterinary surgery and medicine, veterinary anatomy and physiology, and materia medica. The number of students has risen from 76 to 97; of these 30 hold scholar-

ships, and the remainder are admitted free, some of them being military students; 25 are Hindus and the rest Muhammadans. The staff consists of a European Principal and some native assistants; this staff, the Principal says, is altogether inadequate to the work to be done, which includes a large amount of veterinary practice in addition to the regular work of the classes. In every annual report since the college was opened in 1881, the Principal has recommended that the course of study should be lengthened to three years, but no notice has been taken of the suggestion. The Principal also recommends that every candidate should be required to pass the middle school examination in English before admission to the college. The total expenditure was R26,156 in 1886-87, and R28,278 in 1891-92; this expenditure is met partly from provincial and partly from imperial revenues.

189. Action taken in the Central Provinces.—An industrial survey of the province was made in 1888-89, and from the report it appears "that the few existing industries of these provinces, none of which have ever been of great importance, with the exception perhaps of the cotton and brass manufactures, are decaying, and some have almost ceased to exist. The tastes of their former patrons have changed, and they are quite unable to struggle successfully with their European competitors who apply scientific principles and utilise the mechanical arts, while they have shown how incapable they are of going a step beyond primitive and obsolete methods. It would, under the present state of things, be quite futile to attempt to resuscitate or improve any of the existing industries by establishing technical schools in their neighbourhood. Besides none of them are commercially of such importance as to justify any public expenditure being incurred in providing special technical instruction on their behalf." Even the artisans who are found in almost every village in India are singularly deficient in these provinces; in some districts there is not a carpenter capable of making an ordinary table, and the Railway Company has been obliged to import from other provinces almost the whole of the workshop establishment, from the Superintendent down to the blacksmiths and carpenters, while in one division it was necessary to import masons to build the bridges. Carpentry classes have been for some years attached to various schools; in 1887 their number was 14 with 242 pupils; many of these gradually deteriorated into mere workshops, and when the system of manual training was introduced into the primary and middle schools in 1890-91, it was decided that the carpentry classes should be abolished, and the teachers trained to give instruction in the new system. In 1892 the number of classes had been reduced to 8, and the number of pupils also decreased slightly, though it still exceeded the number in 1887 by 90.

The special measures adopted by the Chief Commissioner were the creation of technical scholarships, and the establishment of engineering and agricultural classes at Nagpur. An attempt was made to induce the authorities of the Morris College to convert the college into a technical institute, "but the shortsighted prejudices of the Mahratta Brahmins on the management frustrated the scheme." To provide for technical scholarships 12 stipendiary apprenticeships open to candidates for the Public Works Department were abolished; they were practically of no use as there were no candidates for them. In place of them ten scholarships of R8 a month for natives, and five of R10 a month for Europeans and Eurasians, were offered annually, tenable for two years in the workshops of the Bengal-Nagpur Railway. All the scholarship-holders are trained as mechanics, those who show a talent for drawing are further trained as draughtsmen, and those with an aptitude for drawing or for higher branches of applied mechanics may become firemen and afterwards drivers. The middle school examination is the admission test for natives, and a standard a year lower

than this for Europeans. In 1889 there were 13 boys under training, but no nformation is given in the later reports

190. **Nagpur Engineering Class.**—This class was opened in July 1888, to train candidates for lower subordinate appointments in the Public Works Department, for employment under local bodies, etc. The course of study lasts two years, and includes the following subjects:—

A.—Mathematics.

1. Arithmetic, the whole.
2. Algebra.
3. Trigonometry, up to measurement of angles.
4. Mensuration, lines, surfaces and solids.

B.—Engineering.

1. Levelling (including contouring), surveying, traversing, plane-tabling.
2. Drawing, portions of the normal school course, with drawing of plans and elevations of simple buildings, bridges, and culverts.
3. Road-making.
4. Brick and tile-making.
5. Varieties of stone and wood as used for construction.
6. Elements of simple construction.
7. Carpentry.

The instruction is made as practical as possible; in the cold weather the students are taken out for three or four months for instruction in surveying and levelling; they are also taken to see works in progress in the neighbourhood, and in future it is proposed to take them to other parts of the province.

During the last two years seven candidates have passed the final examination and obtained certificates as sub-overseers, and all of these have received appointments of that grade in the Public Works Department; 6 others obtained certificates as sub-surveyors, and at once secured appointments, and even those who failed in the last examination have found no difficulty in obtaining employment. This shows that there is a demand for men trained in Engineering and should have made the class popular, but the Inspector General says that the greatest difficulty is experienced in obtaining suitable candidates,—a fact which is mainly due to the superior attraction of the Arts course. At first the scholarships awarded on the result of the middle school examination were made tenable in this institution, but it was found that the boys did not receive a sufficient general education to enable them to cope with subjects of a technical character; under the new rules regarding scholarships four scholarships are offered annually to those who pass the Matriculation examination; the scholarships are of the value of R7 a month, if held by boys whose parents reside in Nagpur, and R10 if held by boys coming from other parts of the province.

In March 1889 the number of students was 11; a year later it rose to 19; but it has since fallen to 12. The expenditure in 1891-92 was R2,855, all of which was met from provincial revenues.

191. **Nagpur Agricultural Class.**—This class was opened in June 1888, in connection with the Nagpur experimental farm. The course of instruction lasts two years, and includes the theory and principles of agriculture, elementary chemistry, botany, geology, elementary anatomy and physiology, and the elements of veterinary surgery, land surveying, and drawing. Practical work forms a very large part of the course; each student has a plot of land assigned to him, on which he raises and prepares for the market, with his own hands, some of the principal crops of the district, and receives the amount realised by the sale of the produce. Surveying is also taught practically, the students being taken out

for field work; the work in chemistry includes the practical analysis of soils. In 1889-90 a veterinary dispensary was opened in the institution, in which 790 cases were treated in 1891-92. In 1890-91 the class was visited by Dr. Voelcker, and the following abstract of his remarks is given in the report for the year:—"I must express my pleasure and satisfaction in seeing this the, in my opinion, best agricultural class I have met with in my Indian journeys; I have little doubt that a very great measure of the success attending the class is due to the fact that Mr. Fuller insists upon every student doing the practical work of the farm with his own hands. The assigning to every student of a plot of fair size, which he is to cultivate himself, and the giving to him of the crops grown, must act as a useful incentive. The museum and laboratory are at present on a small scale only, but are begun well, and I was pleased to see how careful a selection both of specimens and of books had been made. All was in miniature, and all good. The teaching impressed me favourably, those in charge of it being evidently intelligent, well trained men. The course of instruction is capital, and has the great merit of not being confused with too many subjects." Accommodation is provided for two classes of 20 students each; at the end of the first year there were 20 students on the rolls, the number afterwards rose to 29, but in 1891-92 it had fallen to 22. At the first two final examinations 20 students passed, all of whom received appointments in the Revenue Department. In 1891-92 10 students passed. In June 1891 a normal class was added to the institution, for training teachers of rural primary schools in the proper method of teaching Fuller's Agricultural Primer, which is a compulsory subject in such schools. Two batches of teachers passed through the class during the year, and 54 out of 63 passed the prescribed test. Each of the teachers had a separate plot of ground given to him for practical gardening, and they were also taken round the experimental farm, and shown the operations and experiments carried on; a few practical lessons in veterinary surgery were also given. The students of this class appeared to take a keen interest in the lessons given them, especially in the practical experiments.

The total expenditure in 1891-92 was R2,757, and the average cost of educating each pupil R66. Scholarships are given to the Agricultural class under rules precisely similar to those of the Engineering class.

192. Action taken in Burma.—In 1889 an industrial survey of Lower Burma was undertaken, but the report has not been received. In 1889-90 a set of technical standards was drawn up by the Educational Syndicate, to which some additions have since been made. Grants are now offered for the following subjects:—

Kindergarten and Slöjd system.	Blacksmith's work.
Drill and gymnastics.	Carpentry.
Vocal music.	Tailoring.
Theory of music.	Cane and bamboo work.
Boot and shoe-making.	Weaving.
Printing.	Lace-making (*for girls only*).
Lithography.	Book-keeping and commercial arithmetic.
Book-binding.	Mechanical engineering and drawing.
Electroplating.	Moulding.
Watch-making.	
Tinsmith's work.	

The first three subjects may be taken in all the primary and middle standards, the fourth in all but the lower primary classes, and the others in Standards IV to VII. The grants for the last group of subjects vary from R3 to R9 for

each pass, according to the standard, smaller grants being given for the first four subjects.

In addition to these grants salary grants are offered equal to the salaries paid by the schools to the teachers employed for special subjects, up to a limit of R50 a month for each teacher. It will be observed that drawing is not included in the list of subjects, though it is one of the optional subjects in schools for general education. There is only one industrial school in the province—St. Peter's Institute at Bassein; it was opened in 1887-88 with 40 pupils; the number rose to 51 in 1891, but fell to 18 in 1892. "A few other schools have taken up a subject here and a subject there, but nothing in a systematic way." Some scholarships of the value of R12 a month for two years are offered to those who pass Standard VII in the technical branches.

The establishment of an Engineering school in Rangoon was under consideration in 1891-92, and after the close of the year definite proposals were submitted for the orders of the Government of India. A few students have been trained in engineering at the Seebpore College with the aid of scholarships, but these scholarships have attracted little competition, and have given poor results. Of 9 scholars 2 resigned and 3 failed to qualify for a degree. In addition to these scholarships 8 stipendiary apprenticeships are given every year in the State Railway Workships at Insein, half to Europeans and Eurasians, and half to Karens and Burmese. The apprentices are bound for five years; during the first year they receive R12 a month, and this is gradually raised to R40 in the last year.

In both Upper and Lower Burma there are schools for training thugyis and district surveyors, the course of instruction in which includes geometrical and map drawing, mensuration and land surveying. In Lower Burma the number of schools has increased from 9 to 12, and the number of pupils from 231 to 295. The expenditure on these schools in 1891-92 was R15,124, R4,422 from fees, and the rest from provincial revenues. There are 80 scholarships of R10 a month tenable for one year. In Upper Burma there were five schools in 1891-92, with 116 pupils; the cost of the schools was R6,339, the fees amounting to only R430. Scholarships are awarded as in Lower Burma, but the number is not yet fixed. The fee rate is R2 a month in the more advanced divisions of Lower Burma, and R1 elsewhere, but the sons of thugyis may be exempted from the payment of fees. Except in special cases no person can be appointed to a post in the Survey Department without passing an examination in surveying.

193. Action taken in other Provinces.—The Chief Commissioner of Assam stated that there was little or no demand for technical education in that province, and no money available to pay for it. "Such demand as there is can be fully satisfied by creating scholarships to be held by boys from Assam, who will attend any school or college in Bengal where a technical training is given." Any candidate who obtains a scholarship on the result of the Entrance examination has the option of joining the Engineer class of the Seebpore College, in which case his scholarship is made tenable for five years. To boys who wish to join the mechanical apprentice class at Seebpore 8 scholarships are offered annually, varying in value from R7 to R15, and tenable for five years; they are awarded on the result of the entrance examination of the Seebpore College; in 1891-92 4 of these scholarships were taken up. On the result of the same examination two Williamson Artisan Scholarships are awarded, tenable for five years in the Jorhat Artisan School. This school is connected with the Jorhat State Railway, and consists of two sections, an artisan class, and a sub-overseer class. The students for the artisan class undergo manual training in the railway workshop, while those in the sub-overseer class learn survey-

ing and engineering from an officer of the Public Works Department. In 1887 there were 23 students, but in 1892 the number had fallen to 10, all of whom were in receipt of scholarships; 6 were in the artisan class, and 4 in the sub-overseer class. The entire cost of the school is paid from an endowment, the Williamson Trust Fund. Besides this institution there are some survey schools managed by the Agricultural Department, for training mandals and mauzadars; in 1886 they were five in number, but as they do not submit returns to the Education Department, the annual reports give no information regarding them. Land surveying is taught in the middle schools, and mensuration in the primary schools.

The following extract from a letter of the Director of Agriculture on the subject of the proposed industrial survey shows very clearly how premature it would be to attempt to introduce an elaborate system of technical education:—

"I have consulted the Inspector of Schools on the subject of paragraph 25 of the above Resolution; and we are both of opinion that the suggestions therein contained have no practical bearing on the circumstances of this province. The only valuable product of Assam which cannot be manufactured without a certain amount of technical knowledge is tea. But as the Assamese are too indolent and too well off to profit by the facilities for learning this industry which already exist, they are unlikely to resort for the purpose to technical schools. All the other exports of any importance are either direct agricultural products, like mustard, requiring no manufacturing process at all, or are universally made by all classes of the people, like silk cloth, and are therefore so generally known that it would be quite useless to start technical schools to teach their manufacture. There are other articles made in the province, such as bill-hooks, in many districts, lacquer-work in Sylhet, gold jewellery at Barpeta and Manipur, ivory articles at Jorhat, all of which require a certain amount of technical education, but which are certainly not of sufficient importance to justify the establishment of a special school. If there were any need for anything of the sort, there would be no difficulty in obtaining apprentices. But as a matter of fact apprentices are not, as far as I am aware, to be had in Assam. A school for teaching carpentry and blacksmith's work exists in Jorhat; many, I understand, of the boys are paid for attending, and a number of those who have passed through the school have gone back, Mr. Willson says, to the customs of their fathers, and resumed fishing and agriculture as a means of livelihood. Even in Government offices, the clerkships of which are so much in demand, apprentices can scarcely be had except on a monthly salary, whereas in Upper India there are always more apprentices available than there are vacancies for them to fill.

"Under these circumstances I would submit that there is nothing to be gained by an industrial survey of the province. We know already what arts and industries exist. So the survey, if undertaken, would teach us little that is new. The main want of the province is a larger population; and until this is obtained nothing in the way of schools or committees will do much to advance its welfare"

On the subject of the industrial survey the Commissioner of Coorg wrote "Coorg may be described as being at present devoid of any important industries; and if its condition in this respect is exceptional, the circumstance is due to the Coorgs being a purely agricultural class. There are no mechanics among them, and all the artisansin the country are non-Coorgs. The Coorgs pride themselves on being simply agriculturists, and are dependent on others for everything they need that calls for technical skill. With the spread of intelligence and education, however, the Coorgs are, I believe, beginning to see the importance of introducing technical education; and a great boon would be

conferred upon the people if the means were afforded to them of learning mechanical trades. Their pride may stand in the way at first, but the more sensible among them will soon learn to appreciate the advantages of such an education for their children, in preference to the book learning, which, in many cases, cannot be made lucrative and too often results in that half knowledge which is worse than useless. The proposal I would make is that technical education should be made a part of the ordinary course of instruction at the Mercara Central School. Every boy should be made, unless he can show good reasons to the contrary, to learn carpentering and other practical mechanic's work. There are in Coorg no caste prejudices to come in these matters; and I think it will be found that the instruction will come to be highly appreciated."

This proposal does not appear to have been carried out, and there are no technical schools of any kind in the province.

In Berar the Resident was of opinion that it was the duty of Government first to improve and enlarge the character of primary education, by making drawing and the knowledge of common things compulsory in all public schools, and then to follow this up with a suitable system of technical education; it has already been shown that the first part of the programme has not yet been carried out. In the beginning of 1889 an industrial school was opened at Akola under the management of the American Mission, and a grant of R287 a month was sanctioned for its maintenance, and for providing scholarships. The grant was sanctioned tentatively for two years, but before the end of that period the Mission resigned the grant, but kept up the school as an unaided institution. In March 1889 there were 45 pupils in the school, the majority of whom were learning tailoring, and the others carpentry, shoe-making, or blacksmith's work. In 1892 the number of pupils had fallen to 24, but the school was reported to be in a very satisfactory condition. There are no other technical schools in Berar; a suggestion was made in 1890-91 for the establishment of caste schools in each district for training carpenters, weavers, etc., but the matter was still under consideration when the report for 1891-92 was written.

194. Attendance in Special Schools.—The following table gives the usual statistics of attendance for the different classes of schools referred to in the preceding paragraphs:—

Province.	1886-87.												1891-92.											
	Engineering Colleges		Schools of Art		Engineering and Surveying Schools.		Industrial Schools		Agricultural Schools and Colleges		Other Schools		Engineering Colleges		Schools of Art		Engineering and Surveying Schools		Industrial Schools.		Agricultural Schools and Colleges		Other Schools.	
	Institutions	Pupils	Institutions	Pupils	Institutions	Pupils.	Institutions	Pupils	Institutions	Pupils	Institutions	Pupils	Institutions	Pupils	Institutions	Pupils	Institutions	Pupils	Institutions	Pupils	Institutions	Pupils	Institutions.	Pupils.
Madras	1	17	1	265	1	164	16	692			3	(a) 269	1	10	1	426	1	185	(b) 18	997	1	45	(c) 5	366
Bombay	1	153	1	264	1	11	13	773			46	322	1	50	1	286	1	14	16	1,220			10	486
Bengal	1	146	1	152	3	210	15	792			10	289	1	244	1	181	3	417	18	672			13	559
North Western Provinces and Oudh	1	158					2	190			(d) 45	2,460	1	180					3	148			51	3,395
Punjab			1	82			6	222			(e) 1	76			1	134			3	443			(e) 1	97
Central Provinces							14	242							2	21	1	11	8	332			2	55
Upper Burma																	5	116						
Lower Burma					9	231	1	96									12	295	1	18			1	59
Assam							1	23			2	92					1	4	1	6			4	205
Coorg																								
Hyderabad Assigned District																			1	24				
Total	4	474	4	763	14	616	68	3 030			(f) 107	3,508	4	484	6	1,048	24	1,042	69	3,860	1	45	(g) 87	5,222

(a) Agriculture 83, Commerce 112, Ordnance Artificers 74 pupils
(b) Four of these are for girls with 82 girls.
(c) Two are for girls with 64 pupils, Commerce 2 with 150, Reformatory 1 with 152 pupils, and Music 2 with 64 pupils.
(d) Patwari Schools.
(e) Veterinary School
(f) In General Table III there are under this head 212 schools with 3,820 pupils, of which 104 schools with 299 pupils are the Guru Training Classes in Bengal, and 1 school with 13 pupils for Europeans and Eurasians in Assam has been wrongly put under this head
(g) In General Table III 282 schools with 8,609 pupils have been shown under this head, but 174 of them with 756 pupils are the Guru Training Classes of Bengal, and 21 with 2,631 pupils are Madrassas in the same province

The two Art schools shown in the returns of the Central Provinces for 1892 are probably drawing classes attached to other institutions; the yare not mentioned in the report. The "other schools" shown in the last column are of too miscellaneous a character for any classification to be attempted.

FEMALE EDUCATION.

195. Difficulties in the way of Female Education.—One of the great obstacles to the spread of female education is the absence of the stimulus of rewards. "If the advantages of the intellectual training of women could be set before Native parents in the same material form as is the case in regard to the education of boys, the prejudices against female instruction would doubtless soon disappear. But it is not likely that any large number of women in this country will obtain any higher forms of remunerative occupation, and female education has, therefore, to rely on the much weaker stimulus supplied by desire for education for its own sake and by comprehension of the value of intellectual culture. Although it is possible that as instruction becomes more general among men, a larger amount of interest in, and sympathy with, the cause of female education will be manifested, it is to be feared that this cause cannot be expected to make very rapid progress for a long time to come." The system of child-marriage withdraws a large proportion of the girls from school at a very early age, and so prevents them from completing their education; it also cuts off the supply of efficient female teacners, for teachers belonging to the classes in which the system does not prevail are often objected to on the score of either caste or religion. In consequence of this men are employed as teachers in most of the schools, and this causes parents to withdraw their daughters earlier than they might do if female teachers only were employed. Another obstacle is indicated in the following remarks by a district officer in Assam:—"It is very difficult in the mufassal to get parents to educate their girls. They are too useful in the house, and parents think they will forget and despise ordinary household duties if they learn how to read and write. Girls thus qualified are said also to become '*dushta*', which I imagine, means that they are less amenable to discipline and less likely to submit to their parents' choice of husbands. That this is the case I know from one or two instances that have come under my personal observation." Here and there are found indications that the prejudices against female education are gradually dying out; in Bombay and also in the Punjab cases are cited of bodies of young men determining to marry none but educated girls, and in one or two cases grown-up girls of good caste have been found at school without any semblance of the purdah system.

196. Explanation of the Maps.—The maps in Chapters V and VI show the percentage of boys in the secondary and primary stages of instruction. For girls it is useless to make this classification, since only ·04 per cent. of the girls of school-going age are in the secondary stages, and of these nearly one-half are Europeans or Eurasians. Among boys the proportion in the secondary stages is about twenty-five times as great, and the number of Europeans and Eurasians is not large enough to materially affect the proportion. The maps in this chapter, therefore, show the percentage of girls in all classes of public institutions: private institutions are excluded, because about two-thirds of the girls attending them are found in *Koran* schools, which hardly deserve a place

in the returns. The figures upon which the maps are based are given in the following table :—

Provinces.	1886 87.		1891 92	
	1	2	3	4
	Total female scholars in public institutions.	Percentage of column (1) to the female population of school going age (census 1881).	Total female scholars in public institutions.	Percentage of column (3) to the female population of school going age (census 1891).
Madras	64,635	2·76	93,905	3 47
Bombay	47,300	2 81	67,432	3 46
Bengal	81,592	1 58	88,731	1·61
North-Western Provinces and Oudh.	11,358	·35	10,938	·32
Punjab	11,070	·85	12,002	·83
Central Provinces	5,678	·66	7,833	·80
Upper Burma	...	...	4,420	1·90
Lower Burma	12,852	4·90	14,246	4 32
Assam	5,184	1·45	5,136	1·29
Coorg	486	4·16	725	6·2
Hyderabad Assigned Districts	1,413	·72	2,020	·95

The North-Western Provinces and Assam show a decrease in the total number of girls under instruction; all the other provinces show an increase; but in the Punjab and Burma the increase has not kept pace with the increase of the population, so that the percentage has decreased. Coorg is now far ahead of all the other provinces of India in respect of female education; Lower Burma comes next, and then Madras and Bombay. The North-Western Provinces come at the bottom of the scale, as they do in all the other maps.

197 Primary Schools for Girls.—The following table gives the usual statistics regarding these schools:—

Primary Schools for Girls.

Province.	1886-87. Maintained by the Department. Schools.	Pupils.	Maintained by Local and Municipal Boards. Schools.	Pupils.	Maintained by Native States. Schools.	Pupils.	Aided. Schools.	Pupils.	Unaided. Schools.	Pupils.	Total. Schools.	Pupils.	Girls in Boys' Schools.	Boys in Girls' Schools.	1891-92. Managed by Government. Schools.	Pupils.	Managed by Local and Municipal Boards. Schools.	Pupils.	Maintained by Native States. Schools.	Pupils.	Aided. Schools.	Pupils.	Unaided. Schools.	Pupils.	Total. Schools.	Pupils.	Girls in Boys' Schools.	Boys in Girls' Schools.
Madras	38	2,108	37	1,903	...	...	462	16,737	170	5,499	707	26,247	24,589	686	114	5,692	16	738	...	...	547	21,268	119	3,376	796	31,074	43,843	861
Bombay	3	262	247	15,025	146	8,289	80	7,006	2	78	478	30,660	13,978	385	3	238	293	17,940	175	11,241	201	11,654	5	180	677	41,253	23,251	1,349
Bengal	...	...	5	236	...	...	1,969	38,044	206	3,617	2,180	41,897	35,631	1,230	...	...	4	186	...	...	2,349	46,786	329	5,430	2,682	52,402	32,187	1,800
North-Western Provinces and Oudh	...	...	168	3,753	...	...	159	5,527	17	381	344	9,661	...	...	...	...	136	2,917	...	...	167	5,832	11	353	314	9,102	217	317
Punjab	2*	126	128	3,428	...	...	164	6,225	16	394	310	10,173	..	...	...	...	190	6,185	...	...	116	3,746	7	175	313	10,106	27	33
Central Provinces	35	1,606	29	1,291	1	84	38	1,751	13	426	116	5,158	427	35	25	1,073	41	1,859	6	227	55	2,368	7	166	134	5,693	1,668	119
Burma — Upper	..	...	..	...	...	...	...	...	.	...	...	...	...	...	...	...	...	...	...	...	29	763	33	447	62	1,210	3,472	357
Burma — Lower	...	...	9	604	...	...	75	2,514	88	1,623	172	4,741	7,967	1,463	...	...	..	...	...	...	39	1,849	11	214	50	2,063	11,385	1,061
Assam	1	29	105	1,635	..	...	48	1,049	12	182	166	2,895	2,403	307	2	26	104	1,556	...	...	15	418	27	411	148	2,411	2,897	300
Coorg	...	...	...	...	...	...	3	61	...	..	3	61	429	11	...	...	1	25	...	...	1	12	...	...	2	37	689	6
Hyderabad Assigned Districts	28	845	6	289	..	...	4	90	...	...	38	1,224	182	...	3	67	41	1,586	...	...	6	179	...	...	50	1,832	212	26
Total	107	4,976	734	28,164	147	8,373	3,002	79,004	524	12,200	4,514	1,32,717	85,606	4,117	147	7,096	826	32,992	181	11,468	3,525	94,875	549	10,752	5,228	1,57,183	1,19,848	6,229

* Schools maintained by other Departments of Government or in other ways.

The total number of schools has increased by 714, and the number of pupils in them by 24,466, or 18·4 per cent.; deducting the boys in girls schools and adding the girls in boys' schools, the total number of girls reading in primary schools has increased from 214,206 to 270,802, or by 26·5 per cent. In Madras, Burma, Assam, and Coorg the majority of the girls are found in boys' schools, and in all of these provinces except Madras there is a decrease in the number of girls' schools and of pupils in them, but this is made up for by an increase in the number of girls in boys' schools. The North-Western Provinces show a decrease in both schools and scholars, and the Punjab a small decrease only in the number of scholars. In every province except Bengal there is an increase in the number of girls attending boys' schools, and the total increase in these schools is much greater than in schools attended exclusively or chiefly by girls. The average strength of a girls' school has increased from 29 to 30 pupils; for different provinces the average strength varies from 16 in Assam to 61 in Bombay. The average attendance has increased slightly from 73·3 to 73·5 per cent., but girls are much more irregular than boys in attendance at schools, for the percentage in boys' primary schools is 80·4.

There is an increase in the number of schools under every form of control, but unaided schools have lost nearly one-eighth of their pupils. The increase in the number of Government schools is confined to Madras, where Local and Municipal Boards are not required by law to take any part in the extension of female education. In the Central Provinces a few schools have been made over to Municipal Boards, and most of the schools in Berar have been transferred to District Boards. In Assam the schools shown as departmental are really aided schools. Aided schools have increased by 523, and their pupils by 15,871: the decrease of 48 schools in the Punjab is due to the transfer of some schools to municipal control, and the inclusion of aided zenana classes under the head of private institutions. Burma, Assam, and Coorg also show a decrease, probably on account of the transfer of the pupils to boys' schools.

198. Secondary Schools for Girls.—The usual statistics are given below:—

Secondary Schools for Girls.

Province.		1886-87. Maintained by the Department. Schools.	Pupils.	Maintained by Local and Municipal Boards. Schools.	Pupils.	Maintained by Native States. Schools.	Pupils.	Aided. Schools.	Pupils.	Unaided. Schools.	Pupils.	Total. Schools.	Pupils.	1891-92. Managed by Government. Schools.	Pupils.	Managed by Local and Municipal Boards. Schools.	Pupils.	Maintained by Native States. Schools.	Pupils.	Aided. Schools.	Pupils.	Unaided. Schools.	Pupils.	Total. Schools.	Pupils.
Madras	English	1	181	1	68	...	...	103	6,317	9	424	114	6,990	2	239	...	...	...	...	63	5,333	6	575	71	6,147
	Vernacular	19	1,584	1	59	...	...	48	4,217	11	721	79	6,581	(b)35	3,008	5	483	...	...	120	9,200	2	192	(b)162	12,883
Bombay	English	1	69	1	20	...	...	48	2,872	1	9	51	2,970	2	103	1	19	1	25	51	3,795	3	110	58	4,052
	Vernacular	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bengal	English	2	193	...	...	...	...	31	2,470	4	397	37	3,060	2	241	...	...	...	...	21	3,289	6	431	39	3,961
	Vernacular	...	...	...	...	...	...	25	1,471	...	...	25	1,471	...	...	1	52	...	...	21	1,386	...	...	22	1,438
Nrtoh-Western Provinces and Oudh	English	...	...	...	...	...	...	17	1,176	...	...	17	1,176	...	...	...	...	...	...	31	1,836	..	...	21	1,836
	Vernacular	...	...	...	...	...	...	2	396	...	...	2	396	...	...	1	22	...	...	...	...	...	...	1	22
Punjab	English	(a)1	(a)222	...	...	...	...	9	473	...	...	10	695	2	308	...	...	...	...	20	1 081	1	24	23	1,413
	Vernacular	...	...	..	...	...	...	1	104	...	...	1	104	..	...	2	124	...	...	3	341	...	...	5	465
Central Provinces	English	...	...	...	...	...	...	3	97	1	5	4	102	...	...	...	...	...	...	5	102	...	...	5	102
	Vernacular	...	...	...	...	...	...	...	...	...	...	...	...	1	92	...	...	...	...	2	84	.	...	3	176
Upper Burma	English	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	2	96	...	...	2	96
	Vernacular	...	...	...	..	...	...	..	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...
Lower Burma	English	...	...	1	138	.	...	10	941	...	...	11	1,079	...	...	1	120	...	...	12	997	...	...	13	1,117
	Vernacular	...	...	...	...	...	...	2	157	...	...	2	157	...	...	...	..	...	...	7	550	...	...	7	550
Assam	English	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Vernacular	...	...	...	...	...	...	4	123	...	...	4	123	...	..	...	...	...	...	2	48	...	...	2	48
Coorg	English	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Vernacular	...	...	..	..	...	...	...	...	...	...	...	...	...	...	...	..	..	...	...	..	...	...	...	...
Hyderabad Assigned Districts	English	...		...		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Vernacular	...	...	...	.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	English	5	665	3	226	...	....	221	14,349	15	835	244	16,072	8	891	2	139	1	25	205	16,529	16	1,140	232	18,724
	Vernacular	19	1,584	1	59	...	...	82	6,468	11	721	113	8,832	(b)36	3,100	9	681	...		155	11,609	2	192	(b)202	15,582

(a) Maintained by other Departments of Government or in other ways: (b) Including one vernacular high school with 92 pupils, shown in General Table III as a high school.

The table shows a decrease of 12 English schools, but an increase of 2,652 pupils: Madras is the only province that shows a decrease in the number of schools and scholars, and there it appears to be merely nominal. In the report for 1887-88 the Director quotes the numbers for 1886-87, and instead of 114 English and 79 vernacular schools he gives 61 English and 109 vernacular, a fresh system of classification having been adopted. Using the revised figures the total increase is 41 schools and 5,240 pupils, to which the Punjab contributes 13 schools, Madras 10, and Bombay 7: in the Punjab both schools and scholars have more than doubled during the five years. Out of the 232 English schools 135 are intended for Europeans and Eurasians, and they contain 11,182 pupils; schools for natives of India number 97, and contain 7,542 pupils. The number of high schools is 75, with an attendance of 7,678 pupils; the remaining 157 are middle schools, with an attendance of 11,046. There are only 8 Government schools, 3 of which are for Europeans, being the Lawrence Asylums at Ootacamund, Sanawar, and Murree. No schools are managed by Local Boards, and only two by Municipal Boards, one in Bombay, and one in Burma, both of which are middle schools. The 205 aided schools include 124 European schools, most of the others being mission schools.

Among vernacular schools the table shows an increase of 89 schools and of 6,750 pupils, but the revised figures for Madras reduce this to 59 schools and 4,162 pupils. Four-fifths of the schools and a slightly larger proportion of the pupils are found in the Madras Presidency, and more than half of the remainder in Bengal. One Government school in Madras is classed as high, but it contains only two pupils in the high stage; all the rest are middle schools. There are 36 Government schools, one in the Central Provinces, and the rest in Madras. Of the 9 Board Schools 3 are managed by Local or District Boards, and 6 by Municipal Boards.

The average strength of secondary English schools has increased from 66 to 81 pupils, while that of vernacular schools has decreased slightly—from 78 to 77. In English schools the average daily attendance has risen from 83·6 to 84·8 per cent., and is considerably higher than in boys' schools of the same class, where it is 80·3 per cent. In vernacular schools it has risen from 77·2 to 77·3 per cent., and is nearly the same as in boys' schools, where it is 78·1 per cent.

199. Stages of Instruction.—In the following table the pupils in secondary schools for girls are classified according to stages of instruction:—

	1886-87.		1891-92.	
	Number.	Percentage.	Number.	Percentage.
High	414	1·7	858	2·5
Middle	4,336	17·4	5,694	16·6
Upper Primary	4,262	17·1	5,009	14·6
Lower Primary	15,919	63·8	22,745	66·3
TOTAL	24,931	100	34,306	100

Throughout the five years there has been a steady increase in the number of pupils in each of the secondary stages, amounting to 107·2 per cent. in the high, and to 31·3 in the middle stage. The primary classes also show a large

increase, but some fluctuations have occurred. The secondary classes formed the same proportion, 19·1 per cent. of the total in both years, the corresponding proportion for boys' schools being 41·1 per cent. The lower primary stage contains nearly two-thirds (66·3 per cent.) of the pupils, against 38·6 per cent. in boys' schools. Taking English schools alone the percentage of scholars in the high stage has increased from 2·6 to 4·6, and the middle stage from 21·9 to 23; in the upper primary stage it has fallen from 20·6 to 18·9, and in the lower primary from 54·9 to 53·5. In vernacular schools the lower primary stage alone shows an increase from 80·1 to 81·6: only 8·9 per cent. of the scholars are above the primary stage.

In the next table all the girls in primary and secondary schools in the different provinces are classified according to the stages of instruction. Girls in European schools have been omitted, in order to show as clearly as possible the present state of education among native girls.

Girls in Secondary and Primary Schools for Natives, 1891-92.

	High.	Middle.	Upper Primary.	Lower Primary.		Total.
				Reading printed books.	Not reading printed books.	
Madras	55	1,841	3,492	64,762	20,022	90,172
Bombay	229	826	8,068	22,576	33,672	65,371
Bengal	95	228	1,587	46,874	36,402	85,186
North-Western Provinces and Oudh.	23	122	748	7,411	1,425	9,729
Punjab	13	123	777	9,231	663	10,807
Central Provinces	...	37	493	2,272	4,506	7,308
Upper Burma	...	2	59	4,298	...	4,359
Lower Burma	...	193	810	12,582	...	13,585
Assam	...	4	26	4,229	834	5,093
Coorg	...	...	41	470	210	72
Hyderabad Assigned Districts.	...	76	244	311	1,356	1,987
Total	415	3,452	16,345	175,016	99,090	294,318

Hence it appears that out of every thousand girls at school only 13 have advanced beyond the primary stage, and only one of these has reached the high stage; rather more than a third of the girls are still in the classes in which printed books are not used. Bombay supplies more than half the girls in the high stage, probably on account of the number of Parsi girls in the schools. Bengal comes next with nearly one-fourth of the whole number, Brahmos taking the place of Parsis. In Bombay, the Central Provinces, and Berar more than half of the girls are in the initial stage of instruction, not using printed books; Burma shows no pupils in this stage.

200. Higher Education of Women.—The returns show only 45 girls on the rolls of Arts colleges, 24 in Bengal, 13 in Bombay, 5 in Madras, 2 in Lower Burma, and 1 in the Central Provinces. There is reason to believe that a few girls have been omitted from the returns, but the total number does not much exceed 50; more than half of them belong to Bengal, which is the only province that possesses a fully equipped college for girls. The returns for 1886-87 show only 5 girls in Arts colleges, 4 in the Bethune College, and one in the Girls' High School, Allahabad, but there were probably some others reading in colleges for boys. Full details are not given regarding the success of female students at the University examinations, but apparently one girl has taken the M. A. Degree of Calcutta, and 13 have passed the B.A. Examination, 7 from Bengal, 3 in Bombay, 2 from Madras, and 1 from the North-Western Provinces. No province, except Bengal, had previously furnished female graduates in Arts.

The medical education of women, at least in the higher branches of the profession, has not made as much progress as might have been expected, considering the large number of scholarships that have been created, from the Countess of Dufferin's Fund and other sources, since the establishment of the National Association for supplying female medical aid to the women of India. The returns show an increase of only 8, from 21 to 29, in the number of female students in medical colleges. The returns are, however, incomplete, for the report of the Association for the year 1892 gives the names of nearly 50 matriculated students. For students of medical schools and non-matriculated students of medical colleges the discrepancy is still greater, the report showing over 200, and the returns only 87. Some of the institutions in which girls study medicine do not furnish returns to the Education Department, and in some of those that do furnish returns boys and girls have not been separated. During the five years 3 girls obtained the degree of M. B., 2 in Bengal and 1 in Madras; 8 girls passed the L. M. S. examination, 3 in Bombay, 2 in Madras, 2 in the Punjab and 1 in Bengal.

201. Race and Creed of Girls at School.—It has already been pointed out that the number of girls in boys' schools has increased rapidly during the last five years, and now forms 42 per cent. of the total number of girls at school. In mixed schools boys and girls are not separately classified according to race and creed, so that it is impossible to determine, even approximately, the number of girls of each race under instruction. A rough estimate of the proportion of the total belonging to each race can, however, be formed from the number of pupils in girls' schools, for the number of boys in them is not very large. In English secondary schools out of 18,724 (16,072)* pupils 10,922 (9,105) are Europeans, 5,015 (3,950) Native Christians, 1,532 (1,895) Hindus, and only 20 (18) Muhammadans; the remaining 1,235 (938) are grouped together under the head of "Others" and include about 600 Parsis, 300 Burmese, and 170 Brahmos. The decrease in the number of Hindus is merely nominal, being due to the transfer of a large number of schools in Madras from the class of middle English to that of middle vernacular. In vernacular secondary schools the total number of pupils is 15,582 (8,832); of these 10,407 (5,885) are Hindus, 3,984 (2,576) Native Christians, 962 (153) Muhammadans; Europeans and "Others" form a very small proportion of the total. In primary schools there are 157,183 (132,717) pupils, of whom 112,383 (93,482) are Hindus, 25,388 (17,630) Muhammadans, 9,645 (8,563) Native Christians, 1,514 (1,779) Europeans, and 8,253 (9,805) "Others."

It is useless to attempt to deduce from these figures an estimate of the percentage of girls at school among the various races of India, as was done by Sir Alfred Croft in paragraph 233 of the last Review. The census tables furnish the necessary data for determining this percentage for the chief religions of

* The corresponding figures for 1886-87 are given within brackets.

India, but it has been shown (paragraph 7) that the census figures relating to education are very inaccurate. These figures are, however, the only ones available, and the following table shows the percentage of girls at school for each of the religions named in the census returns; the corresponding percentages for boys are given in the last column:—

	Girls.	Boys.
Hindus	·71	15·28
Sikhs	·41	11·45
Jains	3·23	61·67
Buddhists	2·82	41·97
Parsis	67·15	124·73
Muhammadans	·67	11·69
Christians	32·91	51·09
Jews	39·55	89·90
Animistic religions	·17	1·74

The inaccuracy of these figures can be shown in the case of Hindus, If all the unclassified boys reading in girls' schools are assumed to be Hindus, and all Hindu girls reading in boys' schools are omitted, the number of Hindu girls at school cannot be less than 1,20,000, and it probably exceeds 1,50,000. The census returns, however, show less than 87,000 Hindu girls as learning, even if Sikhs and those belonging to Animistic religions are included in the total.

Taking boys and girls together the educational returns show about 600,000 more Hindus at school than the census returns. With Buddhists the difference is the opposite way, for the census tables show at least a third more learners than the educational tables. For each of the other religions the number of learners is probably more or less understated in the census returns. A comparison of the two columns shows that Parsis are a long way ahead of all others with regard to the education of both boys and girls, and that Jews come next to them in both respects; Christians are next in order with regard to female education, but they are one place lower with regard to the education of boys. In these three classes there is no great disparity between the two sexes, but in all the other religions the percentage for boys is from 10 to 30 times as great as for girls, the difference being greatest in the case of Sikhs.

202. Expenditure in Girls' Schools.—In the following table the expenditure from all sources in primary and secondary schools for girls in 1891-92 is compared with that of 1886-87:—

Expenditure in Secondary and Primary Schools for Girls.

Province.	1886-87.						1891-92.					
	From Provincial Revenues.		From Local and Municipal Funds.	From fees.	From other sources.	Total.	From Provincial Revenues.		From Local and Municipal Funds.	From fees.	From other sources.	Total.
	In schools under public management.	In Aided Schools.					In schools under public management.	In Aided Schools.				
Madras	43,300	1,27,958	11,847	50,249	2,28,632	4,61,986	75,030	1,41,724	17,082	56,868	2,59,450	5,50,154
Bombay	40,342	73,040	58,368	51,839	1,39,013	3,62,602	42,066	63,938	97,227	78,326	2,35,713	5,17,270
Bengal	16,239	1,37,404	7,914	168,091	2,37,670	5,67,318	18,686	1,39,458	36,999	2,80,417	2,97,468	7,73,028
North-Western Provinces and Oudh	...	33,842	42,666	52,549	1,47,599	2,76,656	...	50,015	45,730	1,37,377	1,01,634	3,34,756
Punjab	8,228	52,280	21,942	33,540	83,656	1,99,646	7,456	44,003	43,244	33,454	50,520	1,78,677
Central Provinces	6,372	11,408	9,403	5,493	14,554	47,230	5,340	13,162	12,743	5,901	20,992	58,138
Upper Burma	...	...	...	...	...	...	...	1,942	...	3,246	1,825	7,013
Lower Burma	...	20,170	25,970	15,514	32,044	93,698	...	15,165	14,364	27,766	36,261	93,556
Assam	90	595	7,607	144	2,990	11,426	56	831	6,775	217	2,483	10,362
Coorg	...	432	120	13	445	1,010	...	100	60	7	21	188
Hyderabad Assigned Districts	905	...	5,020	1,096	55	7,076	886	1,285	8,922	1,771	530	13,394
Total	1,15,476	4,57,129	1,90,857	3,78,528	8,86,658	20,28,648	1,49,520	4,71,623	2,83,146	6,25,350	10,06,897	25,36,536

The total cost of these schools has increased by R5,07,888, or 25 per cent. Expenditure from provincial revenues has increased by R48,538, from local and municipal funds by R92,289, from fees by R2,46,822, and from other sources by R1,20,239. Taking all public funds together the expenditure has increased in all provinces except Burma, Assam, and Coorg, the three provinces in which the majority of the girls are found in boys' schools. Public expenditure has increased in a smaller ratio than private, and now forms only 35·7 per cent. of the total against 37·6 per cent. in 1886-87. In boys' schools the percentage is 41·5; the difference is due to the fact that among girls' schools there is a much larger proportion of schools for Europeans; in these schools, though the cost to Government of each scholar is much higher than it is in native schools, the ratio of public to private expenditure is much lower. In the first six provinces in the above list complete returns of expenditure have been given for European girls' schools separately, and it appears that only 23 per cent. of the total cost of these schools is met from public funds, against 44 per cent. in other girls' schools. The large increase of nearly 2½ lakhs in the amount of fees is also due to this class of schools; in the same six provinces the fees in European schools amounted to R5,02,406, and in other schools to R89,937. The increase in each class cannot be determined, as no distinction is made in the tables for 1886-87. The total cost of European schools is 41 per cent. of the total cost of all girls' schools, and they receive 37 per cent. of the whole sum expended from provincial revenues, but less than one per cent. of the local expenditure.

203. Female Education in Madras.—During the past five years the number of girls under instruction has increased more rapidly in Madras than in any other province of India: taking all classes of schools together, public and private, the number of scholars has increased by 33,334, while for the rest of India (excluding Upper Burma, which did not appear in the returns for 1886-87) the increase is only 34,601. The percentage of increase is 51·2, and this too is higher than that of any other province, though Coorg comes very close to it, with an increase of 51·1 per cent. This rapid progress is due to the organisation of a special inspecting staff for girls' schools in 1888-89: before that time the schools in 11 districts out of 22 were under the charge of an Inspectress with three subordinates, one of whom was a female; in five years the number of scholars in these districts had increased by 42 per cent., while in the other districts, the schools of which were under the Circle Inspectors, the increase was only 33 per cent. In 1888-89, an additional Inspectress was appointed, and two additional Sub-Assistant Inspectors, one of whom has since been replaced by a trained female teacher, and as opportunity offers the others will be similarly replaced. The following table, giving the percentage of increase in each year, shows very clearly the connection between the progress made and the increase in the inspecting agency:—

1887-88	0·6
1888-89	6·6
1889-90	12·1
1890-91	12·0
1891-92	12·3

The progress appears less satisfactory when the scholars are classified according to the stages of instruction: of 93,439 (64,225)* pupils in public institutions, no less than 86,841 (58,783) were in the lower primary stage; the upper primary classes contained 3,884 (3,331), the middle classes 2,514 (1,988), and the high departments only 200 (123). Matriculated students numbered 13 (5), of whom 5 (0) were reading in Arts colleges, 6 (5) in the Medical College, and 2 (0) in

* The corresponding figures for 1886-87 are given in brackets.

the Teachers' College. The explanation of the small number of girls who have reached the higher stages is given by the table showing the race and creed of scholars. In the primary classes Hindus form two-thirds of the total number of scholars, and Muhammadans one-eighth; but very few girls of either of these classes remain at school long enough to reach a higher stage. In the middle classes the proportion of Hindus falls to 22 per cent., and that of Muhammadans to a little over one per cent.; in the high departments Muhammadans disappear altogether, and Hindus form only 10 per cent. of the scholars. Europeans, Eurasians, and Native Christians form 76 per cent. of the scholars in the middle stage, 89 per cent. in the high stage, and in the colleges all the students belong to these classes. Still there are signs of progress among Hindus and Muhammadans. The last three reports contain a table showing the classification of the scholars in each stage of instruction according to race and creed, a table which is not given in the reports of any other province. From this it appears that in two years the number of Hindu girls in the middle stage has increased by 25 per cent., and that of Muhammadan girls by 35 per cent. In 1891-92, the first Hindu girl, a Brahmin, passed the Matriculation Examination, and since the close of the period under review a Muhammadan girl has done the same. One Muhammadan and 14 Hindus have passed the Higher Examination for Women during the last five years. In the Christian section of the community higher education has made rapid strides: from the founding of the University to the end of the year 1886-87 only 43 girls had passed the Matriculation Examination; last year the number of passes was 48, and the total for the five years was 124, besides one Hindu and three Parsis. During the same period 8 girls passed the First Arts Examination, and two obtained the B. A. degree; before the beginning of 1887-88 only two girls had passed the First Arts, and none had appeared at the B. A. Examination. Two girls obtained the title of Licentiate and one the degree of Bachelor of Medicine and Surgery; the Licence had previously been obtained by only one female candidate. At the Higher Examination for Women 717 Christian candidates were successful. This examination is about to be abolished, and from December 1892 the Upper Secondary Examination will take its place.

The number of English secondary schools appears to have decreased from 114 to 71, but this is due to a change of classification: in 1887 all schools in which English was taught were classed as English schools, but in the following year the schools in which English was merely an optional subject were transferred to the list of vernacular schools, and in the report for that year this revised classification is used in quoting the statistics for 1886-87. Adopting the later figures as correct, the number of English secondary schools has increased from 61 to 71, and the number of scholars from 4,402 to 6,147. The number of high schools has increased by one only, from 25 to 26, but many of the schools oscillate between the high and the middle grade, according to the supply of pupils who are willing to remain at school after passing through the middle stage. Making a similar correction in the case of vernacular schools, there is an increase in the number of schools from 109 to 162, and of pupils from 9,169 to 12,883. Primary schools have risen from 707 to 796, and the pupils in them from 26,247 to 31,074. Owing to the creation of scholarships in connection with the Countess of Dufferin's Fund the number of girls in the Medical School of Madras has risen from 15 to 35; in 1891-92 16 girls passed the Primary and 4 the Final Examination for the apothecary grade, and three Dufferin scholars passed the final examination of Hospital Assistants. In the Madras School of Art the number of female students (34) remained unchanged. A school of music has recently been established, which had 12 girls on its rolls last March. There are four industrial schools for girls, in

which lace-making, embroidery, and art-needlework are taught; two of the schools are intended specially for Muhammadans, and were attended by 28 girls of that class; one school contained seven Hindu girls, but the majority (112 out of 147) were Native Christians.

204. Female Education in Bombay.—The total number of girls under instruction in Bombay has increased from 52,941 to 73,017, or by 37·9 per cent. The distribution of the scholars in the different stages of instruction in March 1892 was as follows:—High 408 (167), Middle 1,154 (839), Upper Primary 8,611 (6,334), Lower Primary 57,052 (39,834). The rate of increase is highest in the high stage, but here the majority of the scholars are Europeans, Eurasians, Native Christians, and Parsis. Up to 1887, these were the only classes that had succeeded in passing any girls at the Matriculation examination, but during the last five years 4 Hindu girls have been successful; the other successful candidates were 57 Europeans or Eurasians, 11 Native Christians, and 21 Parsis. In 1891-92 the total number of passes was 18, against 11 in 1886-87. Two girls, both Europeans, passed the University School Final Examination, 1 in 1889 and 1 in 1890. During the same period 6 girls have passed the Previous Examination, 1 Eurasian and 5 Parsis: at the first B. A. examination 5 girls have been successful, 1 Eurasian, 3 Parsis, and 1 Jewess. Three girls have passed the final examination for the degree of B. A, 2 Parsis and 1 Parsi Christian; the latter was the first girl who succeeded in obtaining the B. A. degree in Bombay. One Parsi girl who passed the B. A. examination in 1890 from the Wilson College obtained a Dakshina Fellowship, and continued her studies for the M. A. examination. A European girl obtained the Licence in Medicine and Surgery in 1889, and in 1891 a Parsi and a European stood first and second in the first class at the final examination for the same Licence. In March last there were 13 girls reading in Arts College, of whom 8 were Parsis, 2 Europeans or Eurasians, 2 Portuguese, and 1 a Brahmin; in the Grant Medical College there were 19 female students, 3 in the senior and 16 in the junior classes, one of the latter being a Hindu; the others are all Christians or Parsis. The number of high schools remained stationary at 11, while the pupils increased from 1,131 to 1,470; middle schools increased from 40 to 47, and their pupils from 1, 839 to 2,582: 16 of the middle schools contain small high departments. Taking the two classes of schools together, there were 4,052 pupils in 1892, including 576 boys; of these 1855 were Europeans or Eurasians, 1,391 Native Christians, 600 Parsis, 146 Hindus, and 13 Muhammadans. Each of these classes showed a considerable increase, which was greatest among Native Christians. The number of primary schools rose from 478 to 677, and their pupils from 30,660 to 41,253, the latter number including 1,349 boys. The number of girls in boys' primary schools also rose from 13,978 to 23,251. Hindus form the majority in girls' primary schools, their number being 30,432; Muhammadans come next with 6,663, which is nearly three times the number shown in the returns for 1886-87. This is chiefly due to the transfer of a large number of mosque schools in Sind from the list of private institutions to that of aided schools, but there are other indications of the progress of female education among Muhammadans: it is stated that at Shrivardhan in the Native State of Janjira "the Muhammadans have resolved not to accept any girl in marriage unless she is well up in the three R's." The Nawab of Janjira has arranged to build a suitable schoolhouse for the girls of this village at a cost of R10,000. The census returns show that Muhammadans are ahead of Hindus in this respect, for while one out of 141 Muhammadan females is able to read and write or is learning to do so, among Hindu females there is only one out of 226. More than half of the schools in British territory are managed by municipalities, but a considerable number of these

schools are visited by ladies belonging to various missions. "In one place a lady of a Zenana Mission had furnished the Municipal girls' schools with a box each of apparatus for needlework, and the mistresses were accustomed to freely resort to her for counsel and assistance. In Poona the ladies of the local branch of the National Indian Association organized a system of visits to the schools, and were warmly welcomed by the Schools Committee of the Municipality. At the close of the year the ladies were re-furnishing some of the schools out of the funds of the Society." Two schools were in this way supplied with galleries and apparatus suitable for infant teaching, and several of the improvements introduced were copied by schools in other places. In Karachi, too, the municipal schools, including the training school, were regularly visited by the Sisters of the local Convent. In a few of the primary schools spinning and weaving are taught, and there are two industrial schools for girls among those started by Khan Bahadur Kadirdad Khan, in which weaving, Sind embroidery, and plain needlework are the subjects of instruction. Medical schools contained 14 pupils, 7 in the Certified Practitioners' class of the Grant College, and 7 in a midwifery school (aided) at Hyderabad. The number of female pupils of the School of Art was 17 against 12 in 1886-87.

205. **Female Education in Bengal.**—The total number of girls under instruction has risen from 83,292 to 97,142, or by 16·6 per cent. An analysis of the figures, however, shows that this represents very little real progress. The increase of 13,850 pupils is thus distributed—colleges and special schools 193, public schools of general instruction 6,946, private schools 6,711; in the last class the gain of pupils is chiefly in Koran schools, in which little or no secular education is given. The numbers in the different stages of instruction in public institutions are—High 162 (82), Middle 927 (793), Upper Primary 2,359 (2,587), Lower Primary 84,864 (77,904). The gain is therefore entirely in the lower primary stage, the other three stages giving a loss of 14 pupils. Even this gain is to a great extent illusory, for the whole of it occurred during the last year of the period under review, and nearly half of it in a single district, owing to excessive liberality on the part of the District Board in the offer of attendance grants for girls. The high rate of rewards tempted the gurus to use every effort to bring girls upon their attendance registers, but very often without any genuine attempt at educating them: the increase in the number of girls was so great that the District Board could not pay all the grants to which the schools were entitled according to the rules, and probably most of the girls have already disappeared from the school registers. The only real sign of improvement shown by the above table is the increase in the higher stages, showing that there is a slight tendency for girls to remain at school longer than they did a few years ago. The absence of any classification according to race and creed in General Table V renders it impossible to ascertain whether this tendency is general or confined to certain sections of the community.

In March 1892 there were 24 girls reading in Arts colleges, 20 in the Bethune College, and 4 in La Martinière. The former was affiliated to the Calcutta University up to the B. A. standard in 1888, and is still the only college for girls in India in which the full course for the degree is regularly taught The appointment as Principal of the first Native lady who took the degree of M. A. was noticed in the last Review; under the management of Miss Bose the number of students has increased from 4 to 20, 7 of whom are reading for the B. A. degree, and 13 for the First Arts examination: during the last five years 5 of the students have passed the B.A. examination, 3 of them obtaining honours in English, and 14 the First Arts Examination, one of whom, a Jewess, stood 8th in order of merit among 2,489 candidates, the highest place ever gained by

a girl at this examination. An ex-student of the college passed the M.A. examination in English in 1891. No other institution passed any candidates at the B. A. examination, but two private students obtained the degree: one of these, a Hindu, obtained first class honours in French, and second class honours in English; and the other, a European, obtained first class honours in both English and Latin; in November 1892 she obtained a first class in Latin at the M. A. examination. The three ladies who have obtained the M. A. degree are all Christians. From other institutions 11 girls passed the First Arts examination, making a total of 25 during the five years. At the Entrance examination 98 girls were successful, of whom 80 were Christians, and 18 "others," most of whom were Brahmos. A very large proportion of the Christians are Europeans or Euratians; the schools for these classes supplied 10 out of 16 successful candidates in 1892. The degree of Bachelor of Medicine was obtained by two female candidates and one obtained the Licence in Medicine and Surgery.

The number of high schools rose from 11 to 16, and the number of pupils from 1,089 to 1,576; most of the schools (8 in 1887 and 10 in 1892) are special schools for Europeans and Eurasians, and these classes form about 62 per cent. of the scholars; of Hindus there were 128 in 1887 and 156 in 1892; in the former year there was one Muhammadan, but none in the latter. The remainder are mostly Native Christians and Brahmos. Middle English schools fell from 26 to 23, but the number of pupils rose from 1,971 to 2,385. All but 4 of these schools are European schools, and only 66 of the pupils are not Christians. The number of middle vernacular schools decreased from 25 to 22, and there was a slight decrease in the number of pupils, the great majority of whom are Hindus (1,097) or Native Christians (290); only 13 are Muhammadans. Primary schools have increased in number from 2,180 to 2,682, and the attendance in them from 41,897 to 52,402, but the number of girls in boys' primaries has fallen from 35,631 to 32,187. There are only 301 upper primary schools for girls, against 2,381 lower primaries, and including girls in boys' schools nearly 70,000 of the girls are reading in lower primary schools, in almost all of which the teachers are men; five years ago there were only seven schools of this class under female teachers; in consequence of this most of the girls leave school at the age of nine, and very few of them reach even the upper primary stage. In the primary girls' schools there were 41,051 Hindus, 7,380 Muhammadans, 2,928 Native Christians, 843 of whom belonged to the aboriginal races, and 580 non-Christian aborigines. Only two schools are managed by the Department, both of them being high schools; there are five municipal schools, one middle vernacular, and four upper primary; District Boards do not manage any schools, and give grants only to those aided from the primary fund. A large proportion of the higher grades of schools are found in Calcutta, and include many zenana schools, which will be referred to in a subsequent paragraph.

In 1887-88 special standards of examination were prescribed for girls' schools in Calcutta and the suburbs, and 35 scholarships were created, to be awarded annually on the result of an examination of the three standards corresponding to the lower primary, upper primary, and middle scholarship examinations for boys. "The system at once became very popular, and gave rise to keen competition, which soon elevated the efficiency of the schools. Their extension to mufassal districts was accordingly sanctioned; but as no additional scholarships could be created most of the districts appeared to be reluctant to avail themselves of the change." In some cases the teachers preferred to remain under the old rules, which allowed girls to compete with boys for the ordinary scholarships, but with the option of taking up needlework in place of Euclid, Mensuration, and Physics; the special standards would have added to

the labour of teaching in mixed schools, and also in those girls' schools (a considerable number) which are attached to boys' schools, and taught by the same teachers, but at different hours. The popularity of the examinations in Calcutta is shown by the fact that in three years the number of passes has risen from 15 to 175. The middle scholarships are open to girls reading in zenanas, but the others are restricted to pupils of girls' schools. Schools in Calcutta and the neighbourhood have the additional advantage over other schools of being under the supervision of an Inspectress.

In June 1888 a vernacular class for women was opened at the Campbell Medical School with 15 students, to provide for the medical education of women whose ignorance of English prevented them from joining the Medical College. The upper primary examination was taken as the preliminary test for admission, and the course of instruction was made the same as for male students, lasting three years. At the end of the course 10 of the students passed the final examination for the licence, "some of them with particular credit." The students of the next batch were less successful, for only 3 out of 11 passed the final examination at the end of the third year. The Superintendent remarks:—"Our experience of the past three years has proved that it is possible to educate male and female students in the same classes without friction or any loss of discipline." In March 1892 there were 22 female students on the rolls of the school. The Cuttack Medical School contained 5 female students, two of them being high caste Brahmins. "The experiment of forming the female class has been very successful indeed; but the girls have a not unnatural disinclination to leave Orissa, which limits their usefulness. Those, however, who are employed in Orissa prove most useful. One is now employed as a vaccinator in Cuttack, and is as fully active and energetic as any of the male vaccinators." In the Medical College there were 17 students in the female certificate class at the end of 1891-92, and 5 in the classes preparing for University degrees. During that year 7 native dhais and 13 pupil-nurses passed in midwifery. There were 15 boarders in the Svarnamayi Hostel, of whom 12 were Europeans or Eurasians, and 3 Bengalis, including a Brahmin, a Brahmo, and a Christian. The returns do not show any female pupils in industrial schools or in the School of Art.

206. Female Education in the North-Western Provinces.—In these provinces the state of female primary education is far from satisfactory: in the report for 1887-88, after giving the statistics of primary schools under public management, the Director writes:—"It will be seen that no progress whatever has been made by these schools during the last four years to which the above figures refer. New schools have been opened where the experience of the past has been forgotten or ignored, and old schools have been closed where the accumulation of failures has been impressed on the District Board, and the result reached is the same from which we started four years ago." Three years later the Director wrote:—"The state of these institutions was not on the whole more satisfactory than in the previous years. Some new schools have been opened by District Boards and some closed, and where they have been long open, the tendency of the District Boards is to abandon them as failures."

The following remarks by Mr. Finlay, Chairman of the Agra District Board, on the schools in that district are of interest, as they appear to show that the policy of placing the control of primary girls' schools in the hands of the District Boards is to a great extent responsible for their want of success. In reporting on the schools at the end of 1886-87 he said: "The year was remarkable because of the renewal of interest in the subject of female education. You will recollect that at the public meeting held in Agra, in connection with Lady

Dufferin's scheme for the promotion of female medical schools, reference was made by several of the speakers to the want of female education in general, which accounted for the difficulty iu procuring educated girls to be trained as female doctors. What was advanced then seems to have come home with much force to many of the members of the local boards here, for soon afterwards the subject was very generally discussed at the meetings and action was taken to start female schools in several parganas. The local boards of Firozabad, Fatehpur Sikri, Itimadpur, and Fatehabad were prominent in this respect. So far as Government help was concerned nothing could be done during the year to assist them, as all our budget allotments had been distributed. Moreover, I thought it expedient to test the stability of the schools and the movement by making it pass through a period of probation of not less than six months, during which these new female schools were supported by private subscriptions or by the funds allotted originally to the halkabandi schools, some of which had been closed. Many of the schools have done very well, having a fair average attendance and their pupils showing a fair proficiency in the subjects in which they have been taught. The Deputy Inspector and his subordinate have examined them, and so also have various members of the boards, as they have not been conducted under the purdah system. One member of the Itimadpur Board described to me the other day how he examined the girls' school at Chiraoli and found in it Brahmin, Thakur, and Jat girls, some of them 14 and 15 years of age, and no semblance even of the purdah system. In my own experience I have repeatedly seen movements in favour of the extension of female education rise and soon die away, but I hope for better things of this one. It is certainly spontaneous; it has received up to date no assistance except fair words and advice, the latter more in the way of contracting than expanding it; and in view of the fact that the want of educated girls for the female medical school is now notorious, I sincerely trust that every possible encouragement and assistance will be given to the present movement." Four years later he wrote "It has to be confessed, with regard to female schools in this district, that the cause of female education is making little or no progress. This is the more to be regretted, for a few years ago the Local Boards did seem to have had their attention aroused to the importance of the subject and to be anxious to push it forward as much as possible. But the enthusiasm was ephemeral and is now all but extinct. Only three of the female schools in the district are doing anything like what may be called fair work, and they are sustained solely by the special exertions of individual members of the Boards. It has come to be a question of closing all the female schools except these three." A rather more hopeful view is taken by the Inspector of the Allahabad Circle. He says: "My own opinion—the result of discussions of the subject with educated Natives—is, that in the near future the question of girls' schools will be warmly taken up by the more enlightened section of the Native community in these provinces; and that the appointment of an Inspectress with a thorough knowledge of the vernacular and the customs of Native society would, in a very short time, increase the roll numbers of institutions already in existence and generally popularize the idea of female education. From the Assistant Inspector's letter to my address as well as from other sources I learn that in many respectable Native families the daughters receive home instruction in reading and writing as well as in the management of their household affairs."

The only district from which uniformly favourable reports are received is Lucknow, where the schools are under the charge of a Deputy Inspectress. In consequence of the success which has attended the municipal schools in Lucknow under her supervision, "it has been possible to open in Lucknow,

and nowhere else, a girls' school teaching up to the Middle Vernacular standard." All the other secondary schools in the province, except those for Europeans, are aided schools managed by the various missions, and all the aided primary schools are under the same management. With respect to these the Director says.—"The vernacular schools are much the same in character as those maintained by the District or Municipal Boards. The English or Anglo-Vernacular schools are on a very different footing. Almost all the girls attending these schools are Native Christians, with whom are sometimes associated East Indian girls of the poorest class and occasionally Parsi girls. These schools are becoming more and more important; and from what I have myself seen of those at Gonda, Sitapur, Fyzabad, and Lucknow they appear to contain the germ of much future promise. There are several promising schools of the same description in the larger towns or cities of Rohilkhand. Four things are needed to promote the progress of these schools—(1) a grant-in-aid code similar to that for boys; (2) a public Middle examination rather less exacting than that for boys; (3) a scholarship system, and (4) an Inspectress. The best students from these schools might be induced to undergo a medical training for the Lady Dufferin Hospitals."

Taking public and private institutions together, the number of girls at school fell from 13,243 to 12,813, or by 3·4 per cent. The numbers in the different stages were—high 97 (39), middle 492 (341), upper primary 1,031 (1,161), lower primary 9,340 (9,693). In the English secondary schools all but 27 of the pupils are Christians; these 27 are made up of 13 Hindus and 14 "Others." The municipal middle vernacular school above referred to contains 22 pupils, all Muhammadans, and these are the only Muhammadan girls in secondary schools. In primary schools they number 2,339, Hindus 5,304, and Christians 1,346. In 1892 there were 12 high schools, 9 of them being European schools; 3 out of the 9 middle English schools were of the same character. The Girls' High School at Allahabad is affiliated to the Allahabad University, but there were no students in the College Department last March; the Girls' High School at Lucknow was affiliated to the Calcutta University in 1886, but it is not now included in the list of colleges. The number of girls who have passed the various University examinations is not given in the reports, the results of the final examination of European schools being apparently included under the same head as the Entrance Examination. The name of one European girl appears in the list of successful candidates at the B. A. Examination of 1891. General Table I shows 128 girls in schools for special instruction other than training schools, but Table III does not show in what class of schools they are found; most of them probably belong to the medical schools.

207. Female Education in the Punjab.—At first sight the figures in General Table I appear to indicate a very serious retrogression during the past five years, for the number of girls at school has decreased from 25,885 to 20,359, or by 21 per cent.

The decrease is probably entirely nominal, for it is confined to schools in which children are taught to recite the Koran and other religious books, and the returns of these schools are said to be incomplete. In primary and secondary schools there is an increase of 1,011 scholars, the distribution of the scholars being as follows:—high stage 38 (6), middle 401 (147), upper primary 1,089 (42), lower primary 10,455 (10,277). As in other provinces, Europeans and Native Christians furnish almost all of the scholars in English secondary schools; none of these schools contain any Hindus, and the number of Muhammadans is only 3. All of the schools which are not exclusively European are aided schools under missionary management; there are two high schools with 149 pupils, and three middle schools with 166 pupils: in 1886-87 the number of high

schools was the same, but there was only one middle English school. Middle vernacular schools have increased from one with 104 pupils to 5 with 465 pupils; of these 333 are Hindus, 127 Muhammadans, and only 5 Native Christians Primary schools have increased by 3 only, from 310 to 313, and there is a slight decrease in the number of scholars, 10,173 to 10,106. Of these 5,649 are Hindu and 4,158 Muhammadans. Only 16 girls passed the Entrance Examination during the five years, all of whom were Christians; 14 of them elected to appear at the examination of the Calcutta University, and 3 at that of the Punjab University, one girl passing both examinations. There is no Arts college for girls, and no girls have joined the colleges for male students. There are 11 matriculated students in the Lahore Medical College, and in April 1889, the first female student, Miss H. Connor, passed the final examination for the Licence in Medicine and Surgery. Her sister was first in order of merit at the same examination in the following year, but unfortunately both of them died within a few months.

In 1889 an Inspectress was appointed, and all the girls' schools within municipal limits were placed under her charge, schools outside those limits being left under the care of the Circle Inspectors. Many of the schools in large towns were formerly inspected by ladies who voluntarily assisted the departmental officers; in consequence of the exertions of one of these ladies, Mrs. Steel, the schools at Gujranwala have been remarkably successful, and 40 per cent. of the girls of school-going age are under instruction. In other municipalities the schools are less successful, and the Inspectress states that, except at Gujranwala and Amritsar, "the Municipal Committees seldom showed themselves willing to give any encouragement to female education, and generally made every possible difficulty in giving grants-in-aid."

In the last chapter the difficulty of obtaining suitable teachers for girls' schools was pointed out; in consequence of this difficulty the Department has not attempted to encourage the formation of new schools, but has directed its efforts to the improvement of existing schools, and the provision of arrangements for the training of teachers, "the second measure being contingent on the first, for till the standard of instruction in vernacular schools and departments should be raised, there could be no students fit for training." The most effectual measure for the improvement of the schools has been the award of scholarships on a very liberal scale on the result of the lower and upper primary examinations, the latter class of scholarships being given only to those who may eventually become teachers or medical students, and who are in need of assistance. A new middle examination was established in 1889-90; the middle school examination of the University is the same for both boys and girls, and was practically beyond the reach of the latter, so that there was very little inducement to keep girls at school after passing the upper primary examination. In 1886-87 only 13 girls passed the middle school examination, all of them being Christians; in 1891-92 the number rose to 74, and included 13 Hindus and 5 Muhammadans. The number of successful candidates at the lower examinations has also rapidly increased, in the upper primary from 134 to 279, and in the lower primary from 408 to 647, the increase in both cases being chiefly among Hindus and Muhammadans.

The school department of the Medical College is the only school for special instruction that contains female students; at the end of 1891-92 there were 18 on the rolls. Embroidery and phulkari work are taught in some of the ordinary schools, the latter being very popular, because lucrative.

208. Femlae Education in the Central Provinces.—The total number of girls under instruction has increased from 5,691 to 8,084, or by 42 per cent. Of these 7,813 (5,651) are found in primary and secondary schools, and are distributed as follows: middle stage 147 (119), upper primary 604(550), lower primary

7,062 (4,982). The increase is chiefly in the section of the lower primary stage, in which printed books are not used, where it amounts to 1,889 out of the total increase of 2,162 in all stages. This is due to the admission of a large number of girls into boys' schools, a practice which was not approved by the Department till 1889-90. There are no girls in the high stage, and the returns do not show any girls among the successful candidates at the Entrance Examination; the Calcutta University Calendar, however, shows that one girl passed in 1889 and another in 1891, the former also passing the F. A. Examination in 1891. In 1886-87 all the scholars in secondary English schools were Europeans, and in 1891-92 all but 7 were of this class, and the rest Native Christians. In the latter year there were 163 Hindus in middle vernacular schools, 6 Muhammadans, and 7 Native Christians. In primary schools both Hindus and Muhammadans have increased in number, but there is a decrease from 16 to 11 among girls of aboriginal tribes. The results of the departmental examinations do not show very rapid progress; at the middle examination none but Europeans have been successful; at the upper primary the number of Hindus increased from 97 to 114, and that of Muhammadans from 2 to 9; at the lower primary there was a decrease in both classes, among Hindus from 322 to 306, and among Muhammadans from 7 to 3. All but one of the secondary schools, and many of the primary schools, are aided institutions under missionary management. The missions have also a number of zenana classes, which will be referred to later. As in other provinces, great difficulty is experienced in finding suitable teachers; the Jubbulpore Normal School barely supplies the wants of the Northern Circle, and for other parts of the province there is no provision for training teachers. In the last report the Inspector-General says: "Increased attention has been paid to needlework in most schools, and the Kindergarten system is fairly taught in schools which are provided with trained mistresses. On the whole, however, there is no general advance noticeable in female education." There are no medical schools in the province, and the industrial schools do not contain any girls.

209. **Female Education in Burma.**—In Lower Burma 85 per cent. and in Upper Burma 78 per cent. of the total number of girls under instruction are found in boys' schools, and most of the schools returned as girls' schools contain a large number of boys, boys being even more numerous than girls in the primary girls' schools of Lower Burma. It is therefore useless to give any separate statistics of girls' schools, except those furnished by General Table V, showing the distribution in the different stages of instruction. During the five years the number of girls under instruction in public and private institutions increased from 12,926 to 16,205, or by 25·4 per cent. In public institutions alone there was an increase of 10·8 per cent., while the number of boys decreased by 23·7 per cent. In 1888-89, and again in 1891-92, more stringent rules regarding the recognition of schools were introduced, and a large number of schools ceased to be reckoned as public institutions, though they were still retained under inspection. More than 2,000 monastic schools disappeared from the list, while the lay schools, in which almost all the girls are found, decreased in number by 2 only, and gained a large number of pupils. The following statement shows that the gain of pupils is proportionately greater in the upper primary and middle stages than in the others:—high stage 18 (16), middle 370 (246), upper primary 995 (655), lower primary 12,817 (11,907). All of the pupils in the high stage belong to European schools, but in the middle classes there are 193 pupils belonging to other schools. For Upper Burma the figures are—high stage 3, middle 14, upper primary 77, and lower primary 4,326. The education of girls is spreading more rapidly among the Karens than among the Burmese; the number of Karen girls in indigenous schools under inspection

has increased by more than 50 per cent., and the number of boys is now very little more than double the number of girls: among Burmese girls the increase is less than 6 per cent., and the boys at school are seven times as numerous as the girls. Since 1887 18 girls, all Europeans or Eurasians, have passed the Entrance examination, and 2 of them are now prosecuting their studies in an Arts college. There are no medical schools in Burma, but three scholarships of the value of R40 a month, tenable for three years in the Calcutta Medical College, have been created, and are now held by three Europeans. There is also a class attached to the Dufferin Maternity Hospital, from which 8 girls passed in sick-nursing in 1891-92 and 12 in midwifery.

210. Female Education in other Provinces.—In Assam the education of girls has not advanced beyond the primary stage; the returns show two middle vernacular schools, but they have no pupils in the middle stage. All the rest of the schools are classed as lower primary, but a few of them contain one or two pupils who belong to higher classes. Taking all the schools together, and including girls in boys' schools, who form more than half the total number of girls under instruction, there are only 5 in the middle, and 30 in the upper primary stage out of a total of 5,100 in primary and secondary schools. In all provinces lower primary schools under private management are of a very unstable character, and the girls' schools of Assam are no exception to the rule The total number of girls under instruction in 1892 was practically the same as in 1887, but in the interval the number varied between 6,125 and 4,698. As in Bengal capitation grants are allowed for girls reading in boys' primary schools, in addition to any rewards they may earn. In 1891-92 12 girls passed the lower primary examination, 3 the upper primary, and 2 the middle vernacular. The Surma Valley has not supplied any candidates at these examinations for some years, for the course of study is regulated in this part of the province by the standard fixed by the Sylhet Union, which holds annual examinations *in situ* both of schools and of zenana classes, and gives prizes to the successful candidates. In 1891 the number of candidates examined was 387, and the number of passes 335—141 from zenanas and 194 from schools. In the previous year the numbers were much larger, the Manipur disturbance being one of the chief causes of the decrease.

In Berar the number of girls under instruction has increased by 45·3 per cent. The table does not show any secondary schools, but as in Bombay, some of the primary schools contain classes above the upper primary standard, and these are shown in Table V as belonging to the middle stage. The figures given in this table are—middle 81 (9), upper primary 248 (205), lower primary 16,90 (1,199). Most of the schools are taught by men, but for a few of the best schools trained teachers have been imported from the training school at Poona; in two or three cases the wives of teachers of boys' schools have been placed in charge, and this experiment has proved very successful. The number of passes by the lower primary standard increased from 95 to 163, and by the upper primary standard from 16 to 53, while the total number of passes by all the standards rose from 261 to 565.

In Coorg the number of girls under instruction has increased by 51·1 per cent., and now forms 6·8 of the total female population of school-going age—the highest percentage for any province in India. Among the Coorgs themselves it is said that nearly every boy is at school, and fully 25 per cent. of the girls. The standard of education is not, however, very high, for none of the girls have advanced beyond the primary stage, and the number above the lower primary standard has fallen from 101 to 44. The lowness of the standard is probably due to the fact that nearly all the girls are found in boys' schools, for there is only one school exclusively for girls, and it contains only 25 pupils.

211. Recommendations of the Commission as to Female Education.—In the following paragraphs the recommendations upon which action has been taken by the various Local Governments during the last five years will be dealt with in the same order as in the last Review.

212 Grant-in-aid Rules.—In all provinces higher grants are given to girls' schools than to boys' schools, and on easier terms (X.3), and no changes of importance have recently been made in the rules. In Bengal and the Punjab separate standards have been prescribed for girls, simpler than those for boys, and in other provinces subjects specially suited to the requirements of girls are included in the list of subjects for which grants are given. Fees are generally levied in English schools, but the majority of the scholars in vernacular schools would cease to attend if the payment of fees were insisted upon. For secondary education in English there appears to be a real demand, at least among certain sections of the community, for the fees paid amount to an average of R6-8 per scholar in the first six provinces on the list, excluding all schools for Europeans, and in Bengal the average rises to R13; in vernacular secondary schools the average is only 11 annas, but here again Bengal heads the list with an average of about R2-8. In primary schools the average is only 3½ annas, and nowhere exceeds 5 annas; in the Punjab not a single rupee is paid by the 10,027 children in girls' primary schools, and in the Central Provinces only R89 by 5,421 children in middle vernacular and primary schools together.

In Madras scholarships varying from As. 8 to R5 are awarded in Government girls' schools on the results of the standard examinations and the primary school and lower secondary examinations, to encourage female students to prosecute their studies for the higher standards. Aided schools are eligible for grants to supplement scholarships given from private sources. There are also some scholarships tenable in Arts colleges. In Bengal scholarships have been created for Calcutta and the suburbs, which are given on the result of examinations held in the special standards for girls. One or two Local Boards have also established special scholarships, but in most of the districts girls compete with boys at the upper and lower primary scholarship examinations. Three special scholarships for girls are awarded on the result of the Entrance and two on the result of the First Arts examinations. In the Punjab scholarships are awarded to a large proportion of the girls who pass the lower primary examination, and also to those who pass the upper primary examination, provided there is a reasonable prospect of their becoming teachers or medical students. In the Central Provinces there are some special scholarships, but they are given by selection instead of examination, and in other respects differ from ordinary scholarships. In other provinces there is no separate provision made for girls' scholarships, but girls are allowed to compete with boys at the various examinations.

The Commission recommended that an examination in subjects suitable for girls should be established as an alternative to the Matriculation examination, but no action has been taken upon this recommendation in any province. The Higher Examination of Women of Madras was already in existence when the report of the Commission was written, and in 1883 a separate examination was established for European girls in the provinces coming under the special code for European schools. In Bombay an alternative examination has been established, but no subjects specially suitable for girls have been included in the curriculum, and only two girls have succeeded in passing the examination.

213. Mixed Schools.—The Commission considered mixed schools unsuitable for children above 7 years of age, and recommended that the attendance of girls in boys' schools should not he encouraged, except in places where girls' schools cannot be maintained. In the last Review Sir Alfred Croft quoted

some of the objections raised by Local Governments to this recommendation. In the following extract from the Madras report for 1890-91 Dr. Duncan assigns different reasons for objecting to the recommendation. He says: "Of the girls at schools nearly one-half attended boys' schools. This shows, I think, that mixed schools are not so ill-suited to India as is sometimes supposed. The question of educating boys and girls side by side is one on which difference of opinion exists in Europe and America. Arguments in favour of mixed schools, which are sound when applied to the conditions of life in the West, will many of them fail if applied to the social conditions of India. But, making due allowance for all this, I cannot see any valid objection to little boys and little girls working side by side in the elementary standards, if their parents are satisfied with such an arrangement. It must not be forgotten that the question of allowing grown-up native boys and girls to study together is of little practical moment at the present day, when girls are withdrawn from school at so early an age. In discouraging mixed schools for little boys and girls, it appears to me that we are fostering a sentiment with regard to the seclusion of women which, in the wider domain of social life, we condemn. If parents express a decided wish to have their girls educated in a separate school, their wish should be respected and, if possible, given effect to. But, if they are quite satisfied with the mixed school arrangement, it does seem to me utterly uncalled for to discourage them from sending their little girls to a mixed school, and thus to create an artificial sentiment in favour of the separation of the sexes even in the elementary school. With the paramount importance of spreading primary instruction ever pressing itself upon our attention, the mixed school for the primary standards, instead of being discouraged, should be welcomed whenever and wherever the people are satisfied with it. Many a small village or town is able to support a fairly large school attended by both boys and girls, but would not be able to maintain two schools—one for boys and one for girls." The Government of Madras concurred in these views, and stated that the opening of girls' schools should be discouraged in villages wherein there already existed mixed schools which met all the wishes of the inhabitants. In Burma still stronger views are held: "Deputy Inspectors generally are of opinion that mixed schools suit the present requirements of the Burmese better than distinct schools for girls." In the indigenous system the education of both sexes was entirely in the hands of men, and the people have not yet lost their prejudices against the appointment of female teachers. "At one district where a trained mistress opened a school only very young girls could be induced to attend; the older ones (that is, those more than 9 or 10 years of age) were shy about joining." The Inspector-General of the Central Provinces in 1887-88 upheld the view of the Commission, and did not anticipate much advance in real education from the admission of girls to boys' schools, but two years later their admission was approved by the Department.

In every province of India the number of girls reading in boys' schools has increased, and in Burma, Assam, and Coorg the majority of the girls are found in such schools. Taking the whole of India together, and including only primary and secondary schools (the separation of boys and girls in other schools in 1886-87 being incomplete), more than half the total increase (34,504 out of 65,668) in the number of girls has occurred in boys' schools; a much larger proportion has occurred in mixed schools, for many of the girls' schools contain boys. The increase is not confined to the classes for young children, for it is spread over all the stages of instruction, but the girls in the secondary departments of mixed schools are mostly Christians or Parsis, and the same is true of female students in colleges for boys. A similar increase has occurred in private institutions; in 1885-86 girls reading in boys' schools formed 51 per cent. of the

total number of girls in these institutions, but in 1891-92 the percentage had risen to 57; this is considerably higher than the percentage for schools coming under departmental influence, which is 43 for primary, and 10 for secondary schools, and 39 for the two classes combined. A few girls are found reading with boys even in schools for advanced teaching of classical languages, if the returns can be relied upon with regard to the classification of these schools, but this is doubtful.

214. District and Municipal Boards.—Very great difference of opinion exists regarding the policy of placing girls' schools under the management of District and Municipal Boards (X. 14). In Madras the whole responsibility of providing for female education rests with Government, and the Department has taken over most of the schools formerly managed by the Boards. In Bombay nearly all the primary schools under public management are board schools, and the reports are generally satisfactory; it is especially noted that the number of female teachers employed in the schools is increasing. In Bengal nearly all the schools are under private management; those aided under the results system are under the Local Boards, which have the control of the primary fund, but the Department has retained the control of all schools aided from the grant-in-aid fund: on the whole the Boards devote a fair share of the funds at their disposal to female education, but there is considerable difference in the action taken by different Boards. A case of excessive liberality to girls' schools has been mentioned in a previous paragraph, but another Local Board is said to have checked the spread of female education by withdrawing the monthly allowance paid to gurus for teaching girls. In the North-Western Provinces the reports seem to indicate a want of interest on the part of the Boards, resulting in a loss of schools and scholars; the opinions of some of the local officers have been given in detail in a previous paragraph. In the Punjab again there is great diversity in the action of the Boards; the Inspectress complains of opposition to female education on the part of all the Municipal Committees except two; but one of these two, Gujranwala, probably takes the highest place of all the towns of India in respect of the number of girls at school, which is said to be 40 per cent. of the total number of girls of school-going age. In the Central Provinces nothing is said regarding the attitude of the Boards towards female education, but the Government schools are being gradually transferred to Municipal control. In Burma there is practically no separation of the sexes in primary schools, but the Director complains of the tendency of municipalities to neglect primary indigenous education in order to establish schools in which English is taught. In Berar nearly all the departmental schools were transferred to Local Boards at the beginning of 1892.

215. Teachers in Girls' Schools.—The attempts that have been made in various parts of India to carry out the recommendations of the Commission regarding teachers in girls' schools (X. 16-22) have not met with much success. Male teachers are still employed in the vast majority of primary schools, and in not a few secondary schools: the training schools that have been established are unable to do much more than supply teachers to fill up vacancies as they occur, and in most cases it is useless to add to their number, since there are not enough girls to fill the existing schools. The inducements offered are as liberal as could be expected, but except in schools for Christians very few girls ever reach the standard of general knowledge required for admission to a training school, though this is generally lower for girls than for boys.

The special inducements offered to the wives of schoolmasters to go through a course of training have been referred to in a previous chapter. A few widows have also entered the training schools, and one such school has been established with the express object of training Hindu widows as teachers. The

first Hindu widow entered the Baranagar Training School and Home for Widows in 1888, and in 1892 there were 15 widows under instruction. The course of instruction is not yet sufficiently advanced to justify the designation of training school, but the institution receives a grant of R75 a month from the Department, and the Bengal branch of the National Indian Association gives R88 a month in scholarships to the pupils. There is an institution of a similar character at Poona under the management of the Pundita Ramabai, who, in addition to managing this institution, has started evening classes for training the teachers of the municipal girls' schools.

The Commission recommended (X. 25) that female agency should be more largely employed for the inspection of girls' schools, and in this respect there is some progress to record. In Madras all girls' schools are under the charge of two Inspectresses, and in two ranges out of five the subordinates are also females; the others will be replaced by females as soon as opportunity offers. In the Punjab an Inspectress has been appointed; but as yet only schools situated in municipalities have been put under her charge. The schools in the neighbourhood of Calcutta have for some years been under the charge of an Inspectress.

216. Zenana Agencies, etc.—The following are the recommendations of the Commission on this subject:—"That grants for zenana teaching be recognised as a proper charge on public funds, and be given under rules which will enable the agencies engaged in that work to obtain substantial aid for such secular teaching as may be tested by an Inspectress, or other female agency (X. 23).

"That associations for the promotion of female education, by examination or otherwise, be recognised by the Department, and encouraged by grants under suitable conditions" (X. 24).

The danger of giving too liberal aid to zenana agencies is pointed out in the following extract from a Madras report:—"Home education classes are good as far as they go, and if parents can afford and are willing to pay for the luxury of educating their girls at home it is right that they should have an opportunity of doing so. But it is merely to play with a momentous question for the leaders of Native society to assume that, in patronizing these classes, they are doing a great deal to remove one of the greatest blots on their social system. It must be apparent to all of them that no practicable extension of the home education system can have more than an infinitesimal effect in removing the mass of illiteracy and ignorance which is stifling the very life of society. I am far from thinking that it would be expedient entirely to withdraw departmental aid from these educational agencies. But the conviction has for some time been growing in my mind that unless the utmost caution is taken, increased facilities for opening these classes and liberal grants in aid of them may have an effect the very opposite of that intended—may retard the general spread of female education while advancing it slightly within a very limited sphere. Only those girls who have reached the age when rigid custom ordains that they shall not any longer attend school should be admitted to the home classes. A little judicious pressure brought to bear on parents who are at all desirous to see their daughters educated would here and there have the effect of inducing them to break through the barriers of custom and keep their girls at school some years longer. If parents find that the educational authorities are just as ready to arrange for their girls being educated at home by a semi-private governess as they are to provide for having them taught in a school, they will doubtless choose the former. It is expedient and right that this Department, in administering the expenditure of public funds, should make concessions to the customs of the people; but it is to be expected

that the more enlightened members of the community should set the example of a readiness to meet the Department half-way, and to remove little by little the barriers which custom has set up in the path of female education. The education of one's children involves a sacrifice — a sacrifice of money; it may be of customary opinions, of cherished prejudices, of time-honoured sentiments. If parents are really desirous to educate their daughters, they will be prepared to make the necessary sacrifices. If they are indifferent in the matter, I am not very sanguine as to the amount of good that will be done by home education classes." These apprehensions are not shared by the Department in Bengal, where, in spite of liberal grants, the number of girls under instruction in zenanas in Calcutta and the suburbs is steadily diminishing. "This clearly indicates that as female schools increase and their efficiency is appreciated, the necessity for zenana-teaching is less felt. The girls taught in the schools themselves enter the zenana, and their example as useful members of the household creates a desire for school education. When they in turn become mothers of families, there is no danger that their daughters will be deprived of education in some form." Even in Madras the returns seem to show very little cause for apprehensions of this sort, for the total number of scholars in the home education classes aided by Government has increased by only 24 during the five years, from 107 to 131, while in the town of Madras alone there is a decrease from 107 to 67 in the two agencies that were aided in 1886-87. Three agencies are now aided, but there are several others at work in different parts of the Presidency without any aid from Government; they have not furnished returns for some years, but in 1888-89 the number of pupils was not less than 1,500. The Bombay reports do not furnish any statistics regarding zenana schools, and the grant-in-aid code does not contain any provision for aiding them. The report of the Poona branch of the National Indian Association shows that three home education classes with upwards of 20 pupils were at work in 1891, and that there were nearly as many pupils in classes under the Scotch Zenana Mission. In Bengal there are 5 zenana missions in Calcutta with 416 pupils, 4 of which are aided; there are also several local associations in other parts of the province established for the purpose of promoting home study and testing it by examinations; most of these associations do not furnish returns to the Department, but two of them in 1891-92 examined 348 girls. In 1887-88 the East Bengal Association, acting on behalf of some of these agencies, applied to the Department for Government assistance and support in the conduct of their operations. What it specially desired was "some sort of inspection by female agency with a view to impart a stimulus to the system, and to keep the educational authorities informed of the progress that is being made." The Director was not, however, able to recommend the appointment of a special Inspectress for this purpose. Three of these private agencies are in receipt of aid from District Boards. Zenana agencies are not mentioned in the reports of the North-Western Provinces and no rules have been framed for aiding them. In the Punjab zenana classes have not been brought under the ordinary grant-in-aid rules, but permission has been given to Municipal or District Boards to aid them, provided the teaching is satisfactory. There are 410 girls under instruction in these classes, all in the Delhi Circle; some of the agencies are in receipt of aid, but details are not given. In the Central Provinces the Jubbulpore Zenana Mission receives a grant or R100 a month, and in 1891-92 gave instruction to 180 girls in their own homes. There are several other agencies at work connected with the various missions, but none of them have sought aid from Government. In Burma zenana agencies are unknown, as girls are not secluded after marriage. In Assam the only zenana agency is the Sylhet Union, which has already been referred to; it received a grant of R145 from Local Boards in 1891-92. In Coorg and Berar there are no zenana agencies.

CHAPTER X.

EUROPEAN EDUCATION.

217. Introductory.—The plan of this chapter differs entirely from that adopted by Sir Alfred Croft, and to a less extent from that of other chapters in the present Review. This change of plan has been rendered necessary by the incompleteness of the statistics regarding European schools given in the provincial reports for the first two years of the quinquennium. Previously to the year 1889-90 these schools had no separate place in the annual returns required by the Government of India, and the information given in some of the reports is so meagre that it is impossible to ascertain even the number of schools in existence, or the amount of aid given to them. For the last three years separate tables have been submitted by most of the provinces, and these tables have been summarised as in other chapters.

During the five years, 1882 to 1887, great changes were made in the system of European education throughout India, but the next five years were a period of comparative rest, and very few changes were made except in the details of the system. In consequence of this and of the absence of sufficient statistics to test the progress made, no attempt has been made to trace the history of European education in each province separately.

218. Code of Regulations for European Schools in the Bengal Presidency—The causes which led to the introduction of a separate code for European schools, and the main features of that code are fully described in Sir Alfred Croft's Review. It received the sanction of Government in 1883, but was not brought into full operation for two years, that period being spent in applying the rules tentatively with a view to ascertain what changes were necessary. In 1885, and again in 1886, all the rules of the Code were discussed at a Conference of Inspectors, and most of the alterations suggested at these Conferences were approved by the Government of India. On one important point, however, the substitution of collective for individual examination, the views of the Conference were not accepted, and the Government of India decided that a trial should be given to the system of collective examination in one or two of the less important subjects in selected schools. The system was tried in Bengal in 1886-87, but was found to be very unpopular among both teachers and parents: the head of one institution was strongly in favour of collective examination, but in quoting the argument used the Director says it is "directed not against this or that method of examination, for it applies to collective no less than to individual examination; but against examinations altogether, and even against the very principle of a code, with its course of studies rigidly fixed for each class in every subject." The system of collective examination was therefore abandoned, but in order to give greater freedom to thoroughly efficient schools the following rule, which had previously been in force in Bombay, was introduced into the Code:—"In substitution of the grants which may be earned under these rules, special fixed grants may be made with the sanction of Government to certain schools. Accordingly schools, whose permanent character is established, may be put by the Department on a special list, and such schools shall receive a fixed grant annually for a term of years and payable at a fixed date each year. In the absence of agreement to the contrary such schools must conform to the rules laid down in this Code, and the annual grant shall be conditional upon the Inspector certifying to the continued efficiency of the school." As yet the rule has been applied only in Bengal, where five schools, with an aggregate attendance of 847 scholars, have

been placed upon the special list. The effect upon the teachers of these schools of the substitution of a fixed grant for payment by results is said to have been very beneficial; regarding the last examination the Inspector writes:—"By adopting collective examination of the classes in those subjects of instruction for which that method is particularly suitable, instead of individual examination in all the subjects taught, I found time for a much more thorough examination throughout the whole curriculum than would have been otherwise practicable: while the conscious freedom from the thought that my discoveries might prejudicially affect the grant permitted me to probe deeply, and so find out not only what work had been done, but also how it had been accomplished Under the old system the examination is almost perforce restricted, both by want of time and by the dependence of the grant upon the results, to merely ascertaining whether certain definite questions in each subject can be answered by each individual in a class. It is therefore impossible to test more than a very small portion of the year's work; and thus not only is a considerable element of chance introduced into the examination, but the Inspector is unable to gain that full insight into the working of the school which is absolutely necessary if his report is to be full and reliable.

"The teachers were quite prepared for the great change in the character of the examination, and the result was in every way satisfactory. Instead of the feverish excitement usually prevailing among the teachers on the day of examination (as to whether the questions touched upon the particular points which had been specially crammed for the occasion, and whether the children were each and all making the most of their opportunities), there was healthy anxiety that the work of the year should give satisfaction, combined with eagerness for any friendly criticism or advice, the necessity or desirability of which might suggest itself during the examination. I did not observe a single instance of diminished effort to do well. On the contrary, the anticipation of a more searching and thorough examination appeared to have stimulated every one to greater vigour throughout the year. In several instances I was pleased to notice a marked improvement in the teaching—show and superficiality were gradually being replaced by soundness and depth: bare cramming for the examination day by honest endeavour to teach well whatever subjects were attempted. In these cases, also, it was clear that the teachers were beginning to take advantage of those incidental opportunities which arise, both for cultivating the observing and the thinking faculties of the children, and for adding to their store of useful knowledge.

"Owing to an erroneous idea that any classification of the children not based upon the results of previous examinations under the old system would meet with disapproval, little or no advantage had been taken of the freedom allowed in this respect; and I discovered many scholars, particularly in the middle standards, who might have been removed to another class with benefit both to themselves and to their companions. I hope to find in future that this privilege has been exercised both fully and judiciously.

"Four of the five special list schools are in a very efficient condition. The fifth improved slightly during the year, and I trust that it is at length about to emerge from the unsatisfactory state in which it has been slumbering for many years."

The fixed grant system is regarded less favourably by the parents of scholars: under the old system the result of the examination of each child in each subject is recorded in a scholar's register, which becomes the property of the child after leaving school, and in some cases is of considerable value, for a boy who has passed Standard VI is eligible for admission to the Bengal Pilot Service, and one who has passed Standard VII in certain subjects can join the

mechanical apprentice class of the Seebpore Engineering College. In schools under the fixed grant system there are no scholars' registers, and certificates of passing the standards cannot be given. "Under such circumstances parents are naturally prejudiced against collective examination; and this militates against its continuance, even in those schools where the advantages resulting from its introduction have been most fully realised." In order to avoid placing these schools at a disadvantage in comparison with other schools, it has been proposed to abolish scholars' registers in all schools and to make the middle scholarship examination, the test for admission to the Pilot Service and the Seebpore College. "In the Punjab," the Director says, "the existence of most European schools is more or less precarious, and all are subject to great fluctuations in the standard of efficiency. So long as this state of things continues, it would not, I think, be a wise measure to withdraw the stimulus to exertion afforded by the system of payment by results, for which no adequate substitute has yet been suggested, unless it were determined to adopt the Continental system, and assume the responsibility of managing the schools. This would be, however, directly contrary to the declared policy of Government and for many reasons undesirable." In the Central Provinces fixed grants have not been given under the article of the Code above quoted, but the examination for determining the amount of the grant to be paid to a school has been made quadrennial instead of annual; the annual examinations have not been abolished, but they now serve only as tests of progress, and do not affect the amount of aid given.

A few other changes of minor importance were made in 1888, and it was then decided that no further changes should be made for five years, during which period each Local Government should be at liberty to introduce subsidiary rules on its own responsibility, reporting them from time to time for the information of the Government of India.

219. Results of the Introduction of the Code.—The progress made in Bengal since the introduction of the Code is shown by the increase in the number of scholars in the higher classes; in 1886-87 the number of scholars examined in Standard VII., the highest class of a middle school was 112 but in 1890-91 the number had risen to 205; the figures for 1891-92, are rather lower, as schools on the fixed grant system are excluded; the three middle standards together show an increase of 201, or nearly 25 per cent., while there is a decrease of 52 in the primary standards. In 1883-84, the first year of examinations under the Code, 35 per cent. of the scholars (excluding infants) were above Standard III., while in 1890-91 the percentage was 48, the increase being greatest in girls' schools. It appears that the introduction of a regular system of examination has induced parents to keep their children, especially their daughters, longer at school than they used to do. Formerly very few girls ever reached Standard VII., but now several schools have opened classes to prepare girls for the High School examination of the Code, and the number of candidates is increasing yearly. Before the introduction of the Code singing by note was regarded as an accomplishment to be taught only to selected scholars who could afford to pay an extra fee for it; in only two schools was any attempt made to teach class singing, and even in them singing by note was taught only to the senior pupils. The Code offers a very small grant for singing, one rupee per annum for each scholar, but this has proved sufficient to induce the teachers of 20 schools to introduce singing by note, and in some of them the singing is declared to be excellent. Some of the free schools of Calcutta (they might be termed "ragged schools") are among the best in this respect. In order to qualify the teachers to teach this subject, Mr. Bamford, Assistant Inspector (now Inspector) of European Schools, established a tonic-solfa class

in one of the leading schools of Calcutta, to which teachers and others were admitted free of charge. The influence of the Code is not confined to the schools receiving grants, for some unaided schools are regularly inspected and examined while 10 unaided schools sent up candidates in 1891-92 to the scholarship examinations held under the Code, and two to the High School examination, one of these being in French territory at Chandernagore. Some of these schools merely send up picked scholars who are desirous of obtaining the certificates, but others send up the whole of the scholars in a class in order to test the progress made.

Financially the effect of the Code has been to materially increase the amount of the aid given to schools, but this was to be expected, for the grants had previously been very unequally distributed. In the North-Western Provinces the opposite effect was produced; the total amount of the grants was reduced at first from R75,947 to R66,316, and to bring it up to the latter amount special grants had to be given to five schools in addition to the amount earned. The special grants to two of these schools were "a consequence of the extravagant manner in which the Government grants had been lavished on them previously to the introduction of the Code, rather than of any defect in the amounts which the Code allotted. The other three special grants were required owing to the indigent class to which the scholars belong and the small number for whom education had to be provided." The Director also says the saving of R9,631 "must be wholly ascribed to the very careful administration of the grants to these schools which is rendered necessary by the new Code. I have seen no reason to believe that this saving has been the cause of any real deterioration to the education in these schools, while the definite standards now laid down, the searching examination by the Inspector, and the stimulus to teachers and managers to do their best to earn the grants, has had a most beneficial influence on the efficiency of the tuition and discipline." During the last five years the actual earnings of the schools have increased from R60,904 to R79,729, and the average amount earned by each scholar has also increased. In the Punjab the progress of European education is admitted to be slow, but "there is still substantial evidence of some advance, both instructional and numerical. In the former respect, the majority of the schools are all that need be looked for, and are fully adequate to the circumstances. In respect of numbers, the community itself is chiefly to blame; for, even where good schools exist, many parents are indifferent to the advantages offered, and slack in insisting upon continuous and regular attendance. The chief anxiety is with regard to the scattered and shifting parts of the European population. But the rules of the Code concerning aid towards boarding charges may be said to meet sufficiently the former; and the recent alteration in the number of attendances, whereby only 150 are now required in the six months previous to the examination to entitle to grants is about all that could be done for the latter." In the Central Provinces the most satisfactory sign of progress is the increase in the number of passes by Standard VII, from 10 to 40.

220. Grant-in-aid Rules in Provinces not under the Bengal Code.—In the last Review Sir Alfred Croft stated that certain additions and alterations made in the Madras Code in 1884-85 were derived from the Bengal Code; this statement is objected to by the Director, who says that the changes were approved in outline by Government before the publication of the Bengal Code, and that "they proceeded mainly upon the salary system of aid existing in this Presidency, the results provisions being intended to be subsidiary to that system, instead of as in the Bengal Code, making the latter system predominant." In the schools aided on the salary grant system the rules are nearly the same as for native schools, since the Department does not prescribe a definite course of

instruction for schools aided under this system. For European schools on the results-grant system separate standards of examination have been drawn up, and more liberal grants are given for passing in each subject. In boarding schools grants are given for feeding and clothing destitute children. No changes of any importance have been made during the last five years. In Bombay also the rules are the same now as in 1887: there are separate standards for European schools, but like those of Anglo-vernacular schools they have been so framed as to lead up to the University matriculation examination. The results grants are higher than those given to other schools, but the Code does not contain any rules regarding grants to boarding establishments or orphanages. In Burma new rules regarding grants on account of Europeans and Eurasians were introduced in 1888; the standards of examination are the same as for other classes, because most of the boys are found in schools open to all races, but the grants for attendance and results are at double the usual rates. In addition to the grants on account of boarders, for which all schools are eligible, 20 boarder stipends for the children of poor parents, and 40 orphan stipends are given annually; these are of the value of ₹5 a month for three years, and are in the gift of boards specially appointed for the purpose in Rangoon, Akyab, and Moulmein. The same boards also award ten apprenticeship stipends of ₹15 a month for three years, which are tenable "in any railway workshop, shipbuilding, or timber yard; in any sea-going or river steamer or ship; at any rice-mill or other place of manufacture or business which the Board may approve." Provision is also made for the appointment of four Europeans or Eurasians every year as apprentices in the Government Railway workshops at Insein; the boys so appointed are bound for five years, and receive a salary rising from ₹12 to ₹40 a month besides free quarters. In the other provinces the number of schools for Europeans is only one or two, and special rules are unnecessary.

221. Number of Europeans under Instruction.— The following table shows the total number of Europeans and Eurasians in all classes of institutions, public and private, in 1887 and in 1892:—

	1887.	1892.
Madras	6,966	7,061
Bombay	3,619	4,049
Bengal	6,366	6,921
North-Western Provinces	2,364	2,715
Punjab	1,598	2,131
Central Provinces	916	1,024
Upper Burma	...	75
Lower Burma	1,605	1,710
Assam	40	26
Coorg	19	21
Berar	12	62
TOTAL	23,505	25,795

The figures for 1887 differ slightly from those given in the general tables; 320 scholars in Bengal were not classified in the returns submitted by the managers of the schools to which they belonged, but as the schools are known to have been attended almost exclusively by Europeans and Eurasians, this number has been added to the total. The total number of scholars has increased by 2,290, or 9·7 per cent. Grouping together Bengal, the North-Western Provinces, the Punjab, and the Central Provinces, all of which come under the Bengal Code, there is an increase of 1,547 pupils, or nearly 14 per cent.; in Madras, Bombay, and Lower Burma, which have not adopted the same

Code, the increase is 630, or 5·2 per cent. Assam and Berar also work under the Bengal Code; the former shows a considerable decrease, the latter an extremely high rate of increase, but the number of schools is too small for any conclusion to be drawn from any variation in the number of pupils. If the figures for the preceding five years are taken into consideration, the provinces under the Bengal Code show an increase of 51 per cent. during the ten years, against 27 per cent. in the other three provinces. It does not, however, follow that European education is more advanced in provinces under the Code than elsewhere, and as the census tables are not yet complete, it is difficult to form a decided opinion upon the point. The census tables show that there were in 1891, in the four provinces under the Code, 86,961 Europeans and 27,357 Eurasians, and in Madras, Bombay, and Burma 57,335 Europeans and 42,429 Eurasians, but the statistics regarding age and sex have been published only in a few provinces. It is obvious that the proportion of children among Europeans is much smaller than among Eurasians, since the former include the British troops stationed in India. If the conventional 15 per cent. is used to determine the number of children of school-going age among Eurasians, the fairest way of determing the number for Europeans appears to be to take 30 per cent. of the female population. The fairness of this method of calculation may be tested by the age statistics of those provinces of which the census tables have been received: among Europeans the number of boys under 15 is 36·1 per cent. of the total number of females, while for Eurasians it is 36·7; for girls under 15 the difference is rather greater, being 36·1 for Europeans and 41·1 for Eurasians; these figures agree sufficiently to show that the number of children of school-going age is roughly proportional to the total number of females. Fifteen per cent. is, of course, too low a proportion for the more highly educated classes, but that does not affect the question now to be considered. In 1881 females formed 25·4 per cent. of the total European population, but the proportion in each province is not stated in the census report; in 1891 the proportion in the aggregate of four provinces was 21·7, and for the whole of India it may be assumed to be less than 25 per cent. Adopting this figure the number of Europeans of school-going age would be 7½ per cent. of the whole European population, and this would make the total number of European and Eurasian children of school-going age very nearly the same in Code (10,625) and non-Code (10,664) provinces; the number of children at school is also very nearly the same, being 12,791 in Code provinces, and 12,895 in the others. If these figures are correct it follows that ten years ago the education of Europeans and Eurasians was in a very backward state in the Bengal Presidency compared with the rest of India, and that the result of the introduction of the Code has been to destroy this inequality.

222. **Stages of Instruction.**—The following table gives the percentage of scholars in each stage of instruction (1) for Europeans only, and (2) for all classes; colleges and schools for special instruction are excluded:—

Stage.	Europeans.	All Classes.
Collegiate	·6	·4
High	6·3	1·8
Middle	23·5	3·9
Upper Primary	21·3	10·9
Lower Primary	48·2	83·

Hence it appears that the proportion of children who advance beyond the primary stage is five times as great among Europeans as it is among other classes of the community. On the other hand, a larger proportion of those who reach the middle stage stop short there, and do not enter a high school; this is partly due to the larger number of girls, but still more to the fact that

a large number of European boys leave the middle standards and become apprentices in railway and other workshops. The table appears to show also that a larger proportion of those who reach the high stage proceed no farther, but this is doubtful: European students do not take very kindly to purely literary studies, and a large proportion of those who carry their studies beyond the matriculation standard enter a college for professional training, the majority choosing medicine; the exact proportion cannot be ascertained, since some of the medical colleges contain a large number of military pupils and other students who have not passed the matriculation examination previous to admission. In Arts colleges they form 1·3 per cent. of the entire number of students; in Law colleges 6 per cent.; in Medical colleges 30 per cent.; and in Engineering colleges 21·5 per cent. For the purpose of comparison it may be stated than Europeans and Eurasians form ·1 per cent. of the entire population of India, and ·67 of the total number of children under instruction. The preference of Europeans for technical instruction is also shown by the fact that they form 6 per cent. of the scholars in industrial schools.

In the next table the scholars reading in institutions attended only or chiefly by Europeans and Eurasians are classified according to stage of instruction. The total number of scholars shown in the table differs from that of paragraph 221, because it includes non-Europeans in European schools and excludes Europeans in native schools, and those attending special schools The mixture of Europeans and non-Europeans in the same schools is much more common in Southern India than in the northern provinces: the European schools of Madras contain over a thousand non-Europeans, or about 14 per cent., and the number of Europeans in native schools is about the same. In Bombay, the the proportion is about 11 per cent., while in Bengal it falls to 4, and in the North-Western Provinces and the Punjab to a little over 1 per cent.

Stages of Instruction of Pupils in European Schools for 1891-92.

Province.	Arts Colleges.	Secondary and Primary Schools.											
		Number of Boys in—						Number of Girls in—					
	Number of pupils.	High stage.	Middle stage.	Upper Primary stage.	Lower Primary stage(*a*).	Lower Primary stage(*b*).	Total.	High stage.	Middle stage.	Upper Primary stage.	Lower Primary stage(*a*).	Lower Primary stage(*b*).	Total.
Madras	23	281	887	426	1,836	190	3,620	145	673	392	1,955	102	3,267
Bombay	...	248	414	491	625	141	1,919	179	328	543	616	188	1,854
Bengal	22	271	1,032	867	806	920	3,896	67	699	772	750	838	3,126
North-Western Provinces and Oudh.	23	148	386	342	282	118	(*a*)1,276	74	370	283	227	277	(*b*)1,231
Punjab	...	67	233	235	357	...	892	25	278	312	561	...	1,176
Central Provinces	...	22	121	111	188	46	488	...	110	111	179	105	505
Upper Burma	...	...	1	4	21	...	26	3	12	18	28	...	61
Lower Burma	...	3	37	101	149	...	290	18	177	185	235	...	615
Assam	...	2	3	7	4	...	16	...	1	4	2	...	7
Coorg	...	..	3	5	10	...	18	...	...	3	1	...	4
Hyderabad Assigned Districts.	...	...	...	6	7	16	29	...	5	4	7	16	32
Total	68	1,042	3,117	2,595	4,285	1,431	12,470	511	2,653	2,627	4,561	1,526	11,878

(*a*) Including 75 girls in boys' schools and excluding 144 boys in girls' schools.
(*b*) Including 144 boys in girls' schools and excluding 75 girls in boys' schools.

In the Punjab and Burma the number of girls greatly exceeds the number of boys; in Burma this is explained by the fact that a very large number of boys are found in schools that are not exclusively European, but this explanation does not apply to the Punjab, where only 16 boys and 2 girls are found in native schools, while the difference between the number of boys and that of girls in the schools for Europeans is 284. It is difficult to furnish a satisfactory explanation of this difference, for it is natural to suppose that more girls than boys would be educated at home, and that parents would be more anxious to educate their sons than their daughters. It is possible that it is due to the fact that boarding schools in the hills often draw a large number of pupils from other provinces; the girls' schools of Simla may have drawn a considerable number of girls from the North-Western Provinces, and the boys' schools of Mussoorie a number of boys from the Punjab. The hill schools of the Punjab contain 611 boys and 863 girls, while those of the North-Western Provinces contain 590 boys and 320 girls; giving a total of 1,201 boys and 1,183 girls for the two provinces together. In both provinces there is a similar inequality in the schools in the plains, but it is much less marked; in the Punjab schools there are 280 boys and 314 girls, and in the schools of the North-Western Provinces 516 boys and 477 girls, the totals being 796 boys and 791 girls. In both of these provinces the number of children attending hill schools is much greater than in Bengal, where there are only 411 boys and 192 girls. It is probable that the large proportion of children in the lower primary classes in Madras and Bengal is partly due to a similar cause; from all parts of the Madras Presidency many children are sent to schools in Bangalore, and therefore do not appear in the returns of the Presidency; the majority of these children belong to the secondary or upper primary classes, for very young children are not often sent to boarding schools at a distance from their homes. In the same way many children from Bengal are found in Mussoorie and Naini Tal, and so appear in the returns of the North-Western Provinces. Another reason is that large cities contain a larger number of Eurasians of the poorer class, who cannot afford to keep their children at school long enough to reach the secondary stage.

223. **University Education.**—It has already been stated that Europeans do not take very kindly to literary study in India; the total number of Arts colleges attended exclusively or mainly by them is only 6, and the number of students in them only 68. In the provincial returns two other colleges are classed as European, but in one of them, St Xavier's College, Calcutta, natives of India form 90 per cent. of the students, and in St. Mary's College, Madras, the proportion is not much smaller. The largest of the European colleges is the Doveton College, Madras, which had 23 students on the rolls in March 1892. In Bengal there are three colleges, one aided and two unaided, one of the latter being exclusively for girls. The other two are unaided institutions in the North-Western Provinces; in these provinces there is a third college for girls, but in 1892 there were no students in the college department. Some of these institutions, and a few others not included in the list, are really high schools with a small college department attached whenever there are any students wishing to prepare for University examinations. There are no professional colleges specially for Europeans, both males and females attend the colleges which are open to all classes. In Law colleges there are only 11 Europeans, 2 in Madras, 5 in Bombay, and 4 in the North-Western Provinces. In Medical colleges the number of students is 235, 61 in Madras, 69 in Bombay, 109 in Bengal, and 6 in the Punjab; these numbers include a large proportion of students who are not reading for University examinations, and who have not matriculated; this is especially the case in the Medical Colleges of Bombay and Calcutta, which

contain many military pupils. The Engineering colleges contained 104 Europeans, 1 in the Madras College, 8 in the Poona College of Science, 26 in the Seebpore College (of whom, however, only 3 were matriculated students of the Engineer Class), and 69 in the Roorkee College; the latter read only for the examinations held in the college, and not for University degrees. The Madras Teachers' College contained two Europeans, both females, who passed the B.A. examination in 1890-91. There was one European in the Madras College of Agriculture.

224. **Secondary Schools for Europeans.**—The number of secondary schools for Europeans in each province, and the number of scholars in them on the 31st March 1892 are shown in the following table; boys' schools and girls' schools are not shown separately, because a very large proportion of the schools contain children of both sexes:—

Secondary Schools.

	UNDER PUBLIC MANAGEMENT.		UNDER PRIVATE MANAGEMENT.				Total number of Institutions.	Total number of scholars on the 31st March.	Boys.	Girls.
	MANAGED BY GOVERNMENT, ETC.		AIDED BY GOVERNMENT, ETC.		UNAIDED.					
	Number of Institutions.	Number of scholars on the 31st March.	Number of Institutions.	Number of scholars on the 31st March.	Number of Institutions.	Number of scholars on the 31st March.				
Madras	3	449	66	5,683	3	178	72	6,310	3,316	2,994
Bombay	...	...	41	3,743	1	30	42	3,773	1,919	1,854
Bengal	1	90	41	4,910	10	1,374	52	6,374	3,557	2,817
North-Western Provinces and Oudh.	...	...	23	2,021	1	91	24	2,112	1,163	949
Punjab	4	678	23	1,215	1	24	28	1,917	814	1,103
Central Provinces	...	...	9	253	...	...	9	253	143	110
Upper Burma	...	...	2	79	...	...	2	79	23	56
Lower Burma	...	...	10	840	...	...	10	840	276	564
Assam	...	...	1	23	...	...	1	23	16	7
Coorg	...	...	1	22	...	...	1	22	18	4
Hyderabad Assigned Districts.	...	...	1	53	...	...	1	53	22	31
TOTAL	8	1,217	218	18,842	16	1,697	242	21,756	11,267	10,489

Of the 242 schools included in the table 106 with 10,550 pupils are classed as boys' schools, but nearly 10 per cent. of the scholars are girls; the number of girls' schools is 136, and the number of pupils in them 11,206, including 1,729 boys. The number of high schools is also 106, and is made up of 52 boys' schools and 54 girls' schools; of middle schools there are 54 for boys and 82 for girls. Of the eight schools under public management, one is a municipal school, and the rest Government institutions; they include the Lawrence Asylums at Ootacamund, Sanawar, and Murree, each of which is divided into two schools, one for boys and one for girls; the other school is the Kurseong Boarding School, which is intended chiefly for the children of employés on State Railways; it was formerly a mixed school, but from the beginning of 1888 only boys have been admitted. The unaided schools are only 16 in number, and of these 10 are in Bengal; most of them neither need nor ask for aid from Government, though some of them voluntarily submit to inspection

and examination. A table given in the Bengal report for 1891-92 shows that over 51 per cent. of the scholars attend schools managed by the various Roman Catholic religious orders, though the census report shows that only 30 per cent. of the Europeans and Eurasians in Bengal are Roman Catholics.

225. Primary Schools for European.—The next table gives statistics of attendance in primary schools for 1891-92:—

Primary Schools.

	UNDER PUBLIC MANAGEMENT.		UNDER PRIVATE MANAGEMENT.				Total number of Institutions.	Total number of scholars on the 31st March.	Boys.	Girls.
	MANAGED BY GOVERNMENT, ETC.		AIDED BY GOVERNMENT, ETC.		UNAIDED.					
	Number of Institutions.	Number of scholars on the 31st March.	Number of Institutions.	Number of scholars on the 31st March.	Number of Institutions.	Number of scholars on the 31st March.				
Madras	...	...	13	570	1	7	14	577	304	273
Bombay	...	...	...	...	...	...	...	...	...	...
Bengal	...	...	16	648	...	...	16	648	339	309
North-Western Provinces and Oudh.	...	...	6	395	...	...	6	395	182	213
Punjab	...	...	4	129	1	22	5	151	78	73
Central Provinces.	...	...	11	706	2	34	13	740	345	395
Upper Burma	...	...	1	8	...	...	1	8	3	5
Lower Burma	...	...	2	65	...	...	2	65	14	51
Assam	...	...	...	...	...	...	...	...	...	...
Coorg	...	...	...	...	...	...	...	...	...	...
Hyderabad Assigned Districts.	...	...	1	8	...	...	1	8	7	1
TOTAL	...	...	54	2,529	4	63	58	2,592	1,272	1,320

With very few exceptions these schools are mixed schools; a large number of them are kept up by the various railway companies, for the benefit of the children of their employés; there are six schools of this class in Bengal, all in receipt of aid from Government; in the North-Western Provinces there are seven schools, but they do not appear in the returns, as the grants have recently been withdrawn; three of them have applied for inspection, and the others are likely to follow their example, and will then be shown as unaided schools.

226. Expenditure in European Schools.—The next table gives details of the direct expenditure upon European schools in the year 1891-92, as far as they

are available; in Burma the expenditure from private sources has not been subdivided under the usual heads:—

RETURN OF EXPENDITURE ON EUROPEAN SCHOOLS FOR THE YEAR 1891-92.

Secondary and Primary Schools.

Name of Province.	Total expenditure from—					Grand Total.
	Provincial Revenues.	Local Funds.	Municipal Funds.	Fees.	All other sources.	
	R	R	R	R	R	R
Madras	1,16,082	85	1,825	68,106	2,25,786	4,11,884
Bombay	74,568	...	1,535	1,11,712	1,06,674	2,94,489
Bengal	1,31,310	...	...	4,93,210	1,78,584	8,03,104
North-Western Provinces and Oudh	78,785	549	2,338	2,52,694	73,086	4,07,452
Punjab	51,513	...	...	58,499	39,870	1,49,882
Central Provinces	20,169	...	2,867	9,527	16,588	49,151
Total						
Upper Burma	838	4,158				4,996
Lower Burma	15,953	34,414				50,367
Assam	1,976	...	...	4,241	...	6,217
Coorg	1,200	...	...	1,541	433	3,174
Hyderabad Assigned Districts	1,449	600	...	...	...	2,049
	4,93,843					21,82,765

In Madras the total Government expenditure, direct and indirect, was R1,30,231 in 1886-87, and R1,29,863 in 1891-92; these amounts include R48,000 on account of the Lawrence Asylum, paid direct by Government from charitable funds. In Bombay the provincial expenditure has fallen from R95,929 to R74,568, but fees have risen from R73,465 to R1,11,712. In Bengal the direct Government expenditure on primary and secondary schools has risen from R1,09,083 to R1,40,851, while the total Government expenditure on European education has fallen from R2,50,367 to R1,78,923; the indirect expenditure for 1886-87 was abnormally high, including building grants of the aggregate amount of R1,11,166, the grants for 1891-92 being only R18,500. The total expenditure from all sources amounted to about 6½ lakhs in 1886-87, and to over 8 lakhs in 1891-92. In the North-Western Provinces the Government expenditure has risen from R66,316 to R78,785, but this is very little above the total amount of the grants paid to the schools before the introduction of the Code. In the Punjab the direct provincial expenditure has fallen from R61,889 to R51,513, but this represents only a small portion of the expenditure from public funds; the Lawrence Asylum at Sanawar for soilders' children is maintained from Imperial revenues, and cost R1,18,012 in 1891-92 against R1,05,424 in 1886-87, without including expenditure from provincial revenues on new buildings amounting to over a lakh of rupees. In the Central Provinces the direct provincial expenditure has increased from R15,516 to R20,169.

For the whole of India the direct provincial expenditure amounts to about 5 lakhs, and the average cost of a pupil to public funds is about R21 in secondary schools and R15 in primary schools. Regarding the high rate of aid given the following remarks of the Director in the Madras report for 1886-87 may be quoted, as they are equally applicable to other provinces:—"No doubt this sum may seem large as compared with the expenditure on other classes of the people, but there is no question that no class in the country has done by way of endowment, by payment of high fees, and in other ways, so much for the education of its youth as the Eurasian, although a poor section of the community, both absolutely and comparatively. During the past few years especially more liberal aid has been allowed by Government for its schools; and the community has unquestionably improved, and will continue to improve, if that aid is not withdrawn or unduly curtailed. The very limited number of the class alone renders a higher rate of aid necessary, as the attendance has already well-nigh reached its highest limit." These statements are borne out by the fact that the average fee paid by each scholar in European schools is R43, while in other schools it is only R2, and that in European schools the cost to provincial revenues is 23 per cent. of the total cost, against 43 per cent. in other schools. These figures are not absolutely accurate, for it is probable that in some provinces a few schools have included the whole of the expenditure of the boarding establishments, but they are sufficient to show that Europeans pay far more for their education than natives do, and rely less upon the State for aid for their schools.

227. Final Examinations of High Schools.—The reasons which led to the adoption of a separate final standard for high schools in place of the matriculation examination in the provinces working under the Bengal Code, and the nature of that standard, were explained in paragraphs 247 and 249 of the last Review. The most important changes that have since been made in the list of subjects are the following:—Latin has been added to the list of languages that may be taken up, in order to reduce the difficulty of preparing boys for this examination in schools that cannot give up the matriculation examination altogether; model and perspective drawing have been introduced, and school method has been made an additional subject for teachers, to enable them to qualify for the higher grades of teachers' certificates without requiring them to pass the University examinations.

In Bengal the first examination was held in 1886-87, when nine boys and seven girls presented themselves, but only two boys and two girls succeeded in passing in all the compulsory subjects. At first teachers were under the impression that the new examination would be lower in standard than the University examination, and that scholars preparing for the latter would be able, with very little extra work, to pass the Code examination, and so earn grants for the school: the result of the first examination showed that this impression was erroneous, and that two years of regular instruction were necessary to prepare candidates for the examination. In consequence of this all the boys' schools gave up the idea of sending up candidates, and neither the introduction of Latin nor the recognition of the examination by the University as qualifying for admission to the higher examinations equally with the Entrance examination has been sufficient to induce a single high school for boys to establish classes in place of, or in addition to, the Entrance classes. For three years no boys appeared at the examination, but at the last two examinations four boys appeared from orphanages that had never attempted the University standard, and one of them succeeded in passing. In girls' schools the examination is more popular, partly on account of the exclusion of mathematics from the course; seven girls' schools have established high school classes, and the number of candidates has increased

from 3 in 1887 to 20 in 1891, excluding teachers and boys. The total number of candidates at the last exanination was 26, of whom 10 passed completely, 8 in four subjects, and 2 in three subjects, which is the smallest number qualifying for a grant. The proportion of full passes is reduced by the fact that teachers' certificates of the lowest grade are granted to those who pass in all the compulsory subjects except the second language, so that some of the candidates do not take up this subject at all. Until 1890 none of the candidates took up any of the optional subjects, but now the schools that have definitely adopted the examination have commenced to teach these subjects, and at the last examination candidates took up drawing, music, and botany, and five candidates have passed in school method in order to qualify for teachers' certificates. In the North-Western Provinces the examination was introduced a year later than in Bengal, but it has attracted a much larger number of candidates, both boys and girls, because the Local Government has refused to sanction any grant to the high section of any school except that earned by the pupils at this examination. In 1888-89 the University accepted the standard prescribed for boys as equivalent to the Entrance examination, and in order to allow girls to proceed from this examination to the higher examinations of the University they were allowed to take up mathematics as an optional subject. Before the end of 1888-89 all the schools throughout the province had adopted it as their final standard in place of the University examination, and the number of candidates rapidly increased till it amounted to 85 in 1891, 57 boys and 32 girls. The percentage of success is lower than in Bengal, for only 32 candidates (16 boys and 16 girls) passed in three subjects. At all the examinations girls have shown better results than boys, and this appears to be generally the case at examinations where European boys and girls compete on equal terms. This is partly due to the greater ambition displayed by girls with regard to examinations; but still more to the superior efficiency, as a rule, of girls' schools. It is extremely difficult to obtain good teachers for boys' schools; the pay given is usually small, and the prospect of promotion is very remote, so that the boys who become teachers take the first opportunity that offers of getting employment of a different kind. With the exception of the schools maintained by religious orders, and those that are wealthy enough to employ teachers trained in England, there are very few boys' schools with a proper staff of teachers. In the Punjab the first examination was held in 1888-89, when 5 girls out of 6 passed; in the following year there was only one candidate, who failed, but in 1890-91 the number rose to 26, including 18 boys, of whom 9 passed, while only one girl passed out of 8. In 1891-92 the number of candidates fell to 9 boys and 3 girls, 7 of the boys being successful, and all the girls. The examination has been recognised by the Punjab University, but this was not generally known in time to induce the schools to send up a larger number of candidates. The examination is said to be more searching than the Entrance examination and to require greater thoroughness. In the Central Provinces none of the boys' schools have adopted this standard, and the girls' schools have not yet reached the status of high schools, so that the examination has only been held once, in 1889-90, when a single girl appeared and was successful.

One cause of the unpopularity of the high school examination in boys' schools is the absence of any scholarships to be awarded on the result of the examination; in every province scholarships are given on the result of the matriculation examination, and parents naturally wish their sons to compete for them. In 1889-90 a proposal was made in Bengal to convert six of the junior scholarships into special scholarships for Europeans, to be awarded on the result of the high school examination, and at the same time to declare Europeans ineligible for scholarships on the result of the Entrance examination, but no

action has yet been taken in this direction. It may be remarked that a withdrawal of grants on account of the Entrance classes would have little or no effect in Bengal, for very few schools receive such grants, and the sole result would be to close these classes and drive the boys into unaided schools, which even now supply the majority of the Entrance candidates.

228. **Scholarships for Europeans and Eurasians.**—In all the provinces under the Code there are two grades of scholarships for Europeans, primary and middle; the former are given on the result of an examination in the subjects of Standard IV., and are tenable for three years in a middle school; the latter are tenable for two years in a high school, and the examination is in the subjects of Standard VII. The number of scholarships of each class that can be awarded annually in each province is shown below:—

Province.	Primary.	Middle.
Bengal	20	12
North-Western Provinces	8	6
Punjab	10	6
Central Provinces	5	3

In Bengal children in unaided schools are allowed to compete for scholarships, and the scholarships are tenable in such schools provided the course of instruction is in general conformity with the Code standards; most of the unaided schools have availed themselves of this privilege. In all provinces non-Europeans and children who are disqualified by age from competing for scholarships are admitted to the examinations, and certificates are given to all who pass. The following table shows the number of successful candidates in each province in 1891-92:—

Province.	Primary.	Middle.
Bengal	204	103
North-Western Provinces	12	25
Punjab	58	16
Central Provinces	50	40

In Bombay seven junior and seven senior scholarships are awarded annually to Europeans; the former are of the value of R5 a month for two years, and the standard of the examination corresponds with that of primary scholarships under the Code. The senior scholarships correspond to the Code middle scholarships, and are of the value of R10 a month for three years. These scholarships were created in 1890. In Madras there are no scholarships reserved for Europeans, but under the grant-in-aid rules the amount of any scholarship founded by private persons or societies can be supplemented by an equal amount from provincial revenues. The special stipends for Europeans in Burma are described elsewhere; there are no scholarships intended only for children of this class.

229. **Technical Schools for Europeans.**—The returns show only six technical schools for Europeans in the whole of India, four in Madras and two in Bombay, but there are also industrial classes in connection with the three Lawrence Asylums of Madras and the Punjab, and with the Calcutta Free School. Of the four schools in Madras two are music schools, and two industrial schools. One of these, St. Patrick's Orphanage, Adyar, contained 114 pupils in March 1892, and instruction was given to them in carpentry, tailoring, boot and shoe making, and band-music. The Madras Industrial School contained 42 pupils, some of whom passed the elementary examination in carpentry, blacksmith's work, and boot and shoe making. In the Asylum at Ootacamund carpentry and shoe-making are taught. In Bombay the two schools are the training school for mistresses attached to the Karachi Convent, and the Apprentices' Home, Bombay. In the Sanawar Asylum instrumental music, telegraphy, printing,

and shoe-making are taught, and the boys who learn the first very readily find employment in regimental bands. In the Calcutta Free School telegraphy and printing are taught to some of the older boys. A class for teaching short-hand and type-writing has been opened in the Calcutta Girls' School.

230. **Bruce Institution.**—The number of girls receiving a gratuitous education out of the interest on the munificent bequest of the Misses Bruce was 116 in March 1892 against 68 in March 1887. The capital of the institution now amounts to R6,71,500, which is invested in Government securities, and yields an annual income of R26,792. The cost of educating each girl averages R15-11-9 a month, so that the total number that could be educated is 142, but as some of the girls may remain on the foundation ten or twelve years, only about ten girls are elected annually, though the number is sometimes increased by the occurrence of vacancies. The number of candidates for election is very large, often amounting to ten times the number of girls to be elected, the majority of the candidates being really in need of charitable aid, and unable to obtain the benefit of education without it. The girls are distributed among eight schools, six in Calcutta, and two in Cuttack Of the 116 girls, 59 are in Roman Catholic schools, 39 in Church of England schools, 15 in schools for Dissenters, and 3 in an undenominational school. All the schools in Calcutta are visited at least once in every six months by one of the Governors, and special reports are given by the Inspector of European Schools regarding all the girls on the foundation.

CHAPTER XI.

MUHAMMADAN EDUCATION.

231. Introductory.—When the Imperial tables were revised in 1889, instructions were issued to Local Governments to specially notice in the Education reports the number of institutions wholly or mainly intended for Muhammadans, with the number of scholars in them, but no special form of table was prescribed. In some provinces, notably Madras, very complete statistics of these schools have been given; in others only the number of schools is stated, with no classification according to grade; in others again the only information given is that of Table III regarding private institutions, and in one or two cases even this is incomplete, for both Hindu and Muhammadan institutions are placed under the same head. It is therefore impossible to show for the whole of India the special provision that has been made for the education of this section of the community, or the extent to which it is dependent upon State aid; but these details will be given regarding individual provinces, wherever they are shewn in the reports. Complete statistics are, however, given regarding the number of Muhammadans in schools of each class, and these will serve to show the extent of the progress made during the last five years.

232. Progress of Education among Muhammadans.—The following table shows for each province the number of Muhammadan scholars in public and private institutions in 1887 and in 1892, and the percentage of this number to the total number of scholars, as well as the percentage of Muhammadans to the total population at the census of 1891: the last percentage cannot be determined for 1887, but as the percentage for all the provinces taken together was the same in 1881 as in 1891, it is not probable that there was any material difference in individual provinces. In the last Review the percentage was given at 19·1, which was correct for the whole of India, but in the provinces dealt with in the Review the percentage was 21·8.

Progress of Muhammadan Education.

	Percentage of Muhammadans to total population (census of 1891).	1886-87.						1891-92.					
		Public Institutions.		Private Institutions.		All Institutions.		Public Institutions.		Private Institutions		All Institutions.	
		Muhammadan pupils.	Percentage to total pupils.	Muhammadan pupils.	Percentage to total pupils.	Muhammadan pupils.	Percentage to total pupils.	Muhammadan pupils.	Percentage to total pupils.	Muhammadan pupils.	Percentage to total pupil.	Muhammadan pupils.	Percentage to total pupils.
Madras	6·3	41,285	9·0	2,430	7·9	43,715	8·9	67,417	10·8	16,974	26·3	84,391	12·2
Bombay	16·3	60,972	12·8	23,339	35·5	84,311	15·5	97,186	17·2	22,206	32·7	1,19,392	18·8
Bengal	32·9	338,372	25·7	28,514	62·7	3,66,886	26·9	3,55,207	25·5	93,640	67·1	4,48,847	29·3
North-Western Provinces and Oudh	13·5	41,521	16·4	27,403	35·6	68,924	20·9	34,530	15·9	29,888	45·8	64,413	22·8
Punjab	55·8	50,215	36·9	1,10,670	76·2	1,60,885	57·2	58,988	38·9	72,505	66·8	1,31,493	50·5
Central Provinces	2·4	8,223	7·7	32	65·3	8,255	7·7	8,833	7·7	106	3·2	8,939	7·6
Upper Burma	1·4	...	...	...	...	...	...	250	·5	1,004	9·8	1,254	2·0
Lower Burma	4·5	1,014	·9	581	20·3	1,595	1·4	1,496	1·7	2,676	6·3	4,172	3·1
Assam	27·1	10,136	15·6	2,800	58·0	12,936	18·6	12,800	16·4	3,927	68·5	16,727	20·0
Coorg	7·3	141	4·0	37	11·8	178	4·6	174	3·8	15	3·4	189	3·8
Hyderabad Assigned Districts	7·2	6,161	14·2	190	55·9	6,351	14·5	7,275	14·2	144	190·0	7,419	14·4
Total	21·8	558,040	18·8	1,95,996	52·6	7,54,036	22·6	6,44,156	19·2	2,43,080	47·9	8,87,236	23·0

Private institutions are shown separately for two reasons: in the first place, the great majority of these institutions are Koran schools, in which the scholars merely learn to recite verses of the Koran, and do not even learn how to read and write, so that these schools scarcely deserve a place in the educational system of India; in the second place, an increase or decrease in the number of private institutions shown in the returns is usually an indication of greater or less activity on the part of the officers who collect statistics, rather than of a real increase or decrease in the number of schools; this is said to be the explanation of the loss of over 38,000 scholars in the Punjab.

In spite of this large decrease in the Punjab, the total number of Muhammadans in private institutions has increased by 47,084, or 24 per cent, the increase being greatest in Bengal and Madras. In every province but Coorg the number of Muhammadans in these schools bears a greater ratio to the total number of scholars than the Muhammadan population does to the total population of the province; for the whole of India the percentage of scholars is 47·9, while the percentage of population is only 21·8.

In public institutions the increase amounts to 86,116, or 15·4 per cent., the corresponding percentage for Hindus being 11·7, and for all classes 12·7: thus the number of children under instruction is increasing more rapidly among Muhammadans than among the rest of the inhabitants of India. The North-Western Provinces alone show a decrease, amounting to 7,000, in the number of Muhammadans in public institutions; in Madras and Bombay the increase amounts to more than 50 per cent. In Madras, Bombay, the North-Western Provinces, the Central Provinces, and Berar the percentage of Muhammadan pupils in public institutions is greater than, and in other provinces less than, the percentage of Muhammadans among the entire population. In the report of the Central Provinces this is explained by the fact that Muhammadans form a larger proportion of the urban than of the rural population. This explanation appears to hold good for all the provinces of India except Burma, Assam, and Coorg, as will be seen from the following table showing the percentage of Muhammadans to (1) total population, (2) urban population, and (3) total number of scholars in public institutions:—

	Percentage of Muhammadan to—		
	Total Population.	Urban Population.	Scholars in Public Institutions.
Madras	6·3	14·2	10·8
Bombay	16·2	17·8	17·2
Bengal	32·8	27·5	25·5
North-Western Provinces	13·5	33·9	15·9
Punjab	55·7	50·8	38·9
Central Provinces	2·3	16·	7·7
Upper Burma	1·4	10·3	·5
Lower Burma	4·5		1·7
Assam	27·1	28·8	16·4
Coorg	7·3	23·3	3·8
Berar	7·1	20·7	14·2

In the three provinces named above, Muhammadans are relatively more numerous in towns than in rural districts, but they furnish less than their share of pupils. In Burma this is accounted for by the fact that until quite recently no attempt had been made to bring the indigenous Muhammadan schools of Arrakan within the sphere of departmental influence. In Assam "the great majority of persons professing this faith are, as in Eastern Bengal, local converts from amongst the lower castes and aboriginal tribes" (Census Report, 1891), and this probably accounts for their educationally backward condition. In Coorg also the Muhammadans belong to the backward classes, a large proportion being Mappillas from Malabar. Taking all provinces together Muhammadans furnish 19·2 per cent. of the scholars, while they form 21·8 per cent. of the entire population. If public and private institutions are taken together, the percentage of scholars rises to 23.

233. Classification of Muhammadan Pupils.—The next table shows the number of Muhammadan pupils in each of the different grades of public institutions, and the percentage to the total number of pupils:—

PROVINCE.	1886-87.								1891-92.							
	In Arts Colleges (English).		In Professional Colleges.		In Secondary Schools.		In Primary Schools.		In Arts Colleges (English).		In Professional Colleges.		In Secondary Schools.		In Primary Schools.	
	Muhammadans.	Percentage of Muhammadans.	Muhammadans.	Percentage of Muhammadans.	Muhammadans.	Percentage of Muhammadans.	Muhammadans.	Percentage of Muhammadans.	Muhammadans.	Percentage of Muhammadans.	Muhammadans.	Percentage of Muhammadans.	Muhammadans.	Percentage of Muhammadans.	Muhammadans.	Percentage of Muhammadans.
Madras	50	1·6	4	1·1	3,450	5·2	37,437	9·7	56	1·5	11	1·7	3,814	5·3	63,059	11·5
Bombay	25	2·6	10	1·4	1,657	4·4	59,077	13·8	35	2·6	9	1·8	2,117	4·9	94,746	18·3
Bengal	138	4·3	63	4·5	22,271	12·1	314,103	25·7	299	5·7	37	3·5	27,461	13·5	324,172	27·6
North-Western Provinces and Oudh.	63	13·2	34	13·5	14,367	21·6	26,822	14·8	249	19·0	140	17·7	11,782	21·9	21,717	13·8
Punjab	55	17·2	28	20·1	14,048	31·4	35,578	39·7	84	18·2	45	19·6	16,753	33·1	41,493	41·9
Central Provinces	7	7	...	...	471	11·2	7,703	7·5	13	5·6	4	4·9	2,217	9·3	6,555	7·3
Burma, Upper	...	...	...	...	...	...	...	...	...	...	...	...	26	3·6	224	·4
Burma, Lower	...	...	...	...	422	4·9	591	·6	...	...	...	...	543	5·3	932	1·2
Assam	...	...	...	...	1,640	15·5	8,403	15·6	...	...	...	...	1,550	15·0	11,098	16·6
Coorg	...	...	...	...	9	2·0	132	4·3	...	...	...	...	5	1·0	169	4·2
Hyderabad Assigned Districts.	...	...	...	...	309	6·6	5,834	15·1	...	...	...	...	384	8·3	6,870	14·7
TOTAL	338	4·2	139	5·1	58,644	13·7	495,680	19·7	736	5·9	246	7·5	66,652	14·0	571,035	20·1

From this table it appears that in primary schools the proportion of Muhammadan pupils is nearly equal to the proportion of Muhammadans to the entire population but that the proportion rapidly decreases as we go higher in the scale of education. In special schools the percentage is higher, but this is entirely due to the inclusion under this head of Madrasas in Bengal, which in 1892 contained 2,597 out of the 5,417 Muhammadan scholars in special schools. The rate of increase, however, is greater in colleges than in schools: in Arts colleges the number of students has increased from 338 to 736, and the percentage from 4·2 to 5·9; in the Oriental colleges of the North-Western Provinces and the Punjab the number has decreased from 129 to 90, but the percentage has decreased to a smaller extent, since there has been a decrease in the number of students of other classes also. In professional colleges the number of students has risen from 139 to 246, and the percentage has also risen from 5·1 to 7·5; the numerical increase is greatest in Law colleges—from 99 to 172, but the students in Medical colleges have increased in a greater ratio—from 16 to 39; in Engineering colleges the increase is from 24 to 35; the latter number includes one student in the Madras Agricultural College, which in 1887 was classed as a school. In secondary schools the increase amounts to 8,008 pupils, or 13·7 per cent. In primary schools the increase is 75,355, or 15·2 per cent. Of the various classes of special schools training schools for masters are the most important, and these show a very small increase—from 499 to 509, a large increase from 80 to 155 in Madras being counterbalanced by a decrease in several other provinces; in training schools for mistresses the number of students has risen from 33 to 45, this increase being almost confined to Bombay, which shows 28 against 3. The number of pupils in industrial schools has increased from 547 to 760, chiefly in the Punjab.

234. **Progress of Muhammadans in different Provinces.**—In the North-Western Provinces the percentage of Muhammadans among the urban population is higher than in any other province except the Punjab; this probably is sufficient to account for the fact that Muhammadans form a larger proportion of the pupils in secondary than in primary schools, the former being usually opened only in towns, and the latter chiefly in rural districts; but the large percentage in colleges of all kinds seems to indicate a greater appreciation of the value of higher education than is met with among members of this community in other provinces. This is a natural consequence of their superior social status, being to a great extent the descendants of a former ruling race, while in Bengal, for example, a large proportion of the Muhammadans are the descendants of converts from the aboriginal tribes and the lower classes of Hindus. In colleges the number of students has increased fourfold, while in both primary and secondary schools there is a considerable reduction in the attendance, but this reduction is common to all classes of the community. In the Central Provinces the distribution of the Muhammadan population is similar, but the proportion much smaller, and the distribution of the scholars is also similar to that of the North-Western Provinces; 35·3 per cent., of the boys and 1·8 per cent., of the girls of school-going age are under instruction, the corresponding figures for Hindus being 11·7 and ·6 respectively. The large increase in the number of Muhammadans in secondary schools is to a great extent due to the change of classification of middle vernacular schools, which has already been referred to several times. In the Punjab there has been a considerable increase in all classes of institutions, and the percentages are much higher than elsewhere; but it must be remembered that Muhammadans form the majority of the population, so that all the percentages are lower than they should be. In Bengal the number of Muhammadans in Arts colleges has more than doubled, and the percentage has increased from 4·3 to 5·7, but this is far below the percentage of

population; in professional colleges there is a large decrease, chiefly in Law colleges: both primary and secondary schools show an increase, but in the former the percentage has slightly fallen. In Bombay the percentage of Muhammadans in primary schools has risen from 13·8 to 18·3, and is now above the percentage of population; the conversion of mosque schools in Sind into aided primary schools described in paragraph 115 is the cause of this increase. In both secondary schools and colleges the percentage of Muhammadans is very low in comparison with the population. In Madras also Muhammadans supply more than their share of pupils in primary schools, but less than their share in the higher grades of institutions; the number of pupils in primary schools has increased by over 60 per cent., but in Arts colleges the increase is less than among other classes of the community.

235. **Success at University Examinations.**—The next tables hows the number of Muhammadans who passed the various University examinations in 1886 87 and in 1891-92. The Bachelor of Science degree of Bombay and the Bachelor of Oriental Learning of the Punjab University have both been included under the B. A. examination, and all examinations intermediate between matriculation and these degrees have been included under the First Arts examination.

	1886-87.														1891-92													
	Entrance.		F. A. and corresponding Examinations.		B. A. including B. Sc. and B. O. L.		M. A. including M. O. L.		B. L.		All Medical Examinations.		All Engineering Examinations.		Entrance.		F. A. and corresponding Examinations.		B. A. including B. Sc and B. O. L.		M.A. including M.O.L.		B. L.		All Medical Examinations.		All Engineering Examinations.	
	Total Number passed.	Total Muhammadans passed.	Total Number passed.	Total Muhammadans passed.	Total Number passed	Total Muhammadans passed.	Total Number passed.	Total Muhammadans passed.	Total Number passed.	Total Muhammadans passed.	Total Number passed.	Total Muhammadans passed.	Total Number passed	Total Muhammadans passed.	Total Number passed.	Total Muhammadans passed.	Total Number passed	Total Muhammadans passed.	Total Number passed.	Total Muhammadans passed.	Total Number passed	Total Muhammadans passed.	Total Number passed.	Total Muhammadans passed.	Total Number passed.	Total Muhammadans passed.	Total Number passed	Total Muhammadans passed.
Madras	2,165	43	937	14	158	1	3	...	16	...	42	...	7	...	2,374	33	970	10	316	...	6	...	48	1	32	...	6	...
Bombay	527	5	289	6	81	3	8	...	18	...	119	1	20	...	893	21	314	7	132	1	6	...	35	...	64	2	32(a)	...
Bengal	2,409	133	716	41	369	14	63	2	152	6	47	...	4	...	1,695	85	1,011	47	273	14	46	1	48	4	135	1	9	0
North-Western Provinces and Oudh	477	82	96	13	66	9	6	...	...	...	...	...	...(a)	...(a)	715	107	161	27	112	23	15	...	14	2	...	...	.. (b)	...(b)
Punjab	36	5	2	...	25	3	...	...	...	...	23	2	2	1	619	157	169	26	49	13	3	1	...	..	33	5	...	...
Central Provinces	132	10	27	1	13	1	1	.	...	...	...	...	...	...	99	5	59	3	19	...	4	...	2	...	...	...	...	..
Upper Burma	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lower Burma	39	...	6	...	1	...	...	...	...	...	...	...	...	...	31	...	11	..	4	...	...	...	...	...	...	...	...	..
Assam	97	3	...	...	...	...	...	...	...	...	...	...	...	...	89	11	..	...	...	...	...	...	...	...	...	..	...	...
Coorg	8	...	...	...	...	...	...	...	...	...	...	...	...	...	7	...	...	...	...	...	...	...	...	...	..	..	...	...
Hyderabad Assigned Districts	11	...	...	...	...	...	...	...	...	...	...	...	...	...	23	...	...	...	...	...	..	...	...	...	...	...	...	...
Total	5,901	281	2,073	75	713	31	81	2	186	6	231	3	33	1	6,545	419	2,695	120	905	51	80	2	147	7	264	8	47	...

(a) Exclusive of 19 candidates who passed in Agriculture.

(b) Roorkee College Examination not shown.

The figures in this table do not agree with those in General Table VI, for in Bengal the race and creed of successful candidates are not always shown; in these cases the figures have been obtained from the University records, but the table itself cannot be corrected in this way, since the University does not adopt the same method of classification. The Punjab figures for 1886-87 also differ from those given in paragraph 60; in that year the results of some of the examinations of the Punjab University were not published in time to be used in the provincial report: the total number of successful candidates has been ascertained from the report of the following year, and used in paragraph 60, but the classification according to race and creed is not given. At all the examinations in Arts except the M.A. examination, the number of Muhammadan successful candidates has increased both absolutely and relatively to those of other religions: at the matriculation examination the increase is from 281 to 419, or from 4·8 to 6·4 per cent., of the total number of passed candidates; at the First Arts and other intermediate examinations the number has risen from 75 to 120, or from 3·6 to 4·5 per cent., at the B.A. and similar examinations the number of passes rose from 31 to 51, and the percentage from 4·3 to 5·6; in 1887 two Muhammadans took the M. A. degree, while in 1891-92 one passed that examination and one the M. O. L. examination. The figures appear to indicate that the proportion of the matriculated students who complete the course and obtain the degree is slightly higher among Muhammadans than among all classes together, but the statistics are not complete enough to prove this absolutely. Of 186 candidates who obtained the B. L. degree in 1886-87 six were Muhammadans, in 1891-92 the figures were 147 and 7; taking all the medical examinations together, 3 out of 231 successful candidates in 1886-87 were Muhammadans, and 8 out of 264 in 1891-92. At the Engineering examinations of 1886-87 one Muhammadan was successful, but none in 1891-92; in a former paragraph it was stated that there were 34 Muhammadan students in Engineering colleges, but 31 of these are in the Roorkee College, which does not send up any candidates to University examinations.

236. **Recommendations of the Commission as to Muhammadans.**—In the following paragraphs an account will be given of the measures taken in the different provinces for the promotion of education among Muhammadans. In some provinces the account will necessarily be imperfect, for the special section devoted to Muhammadan education in accordance with the orders of the Government of India, instead of being precise and detailed, is condensed into a few lines, and contains nothing beyond a statement of the number of scholars under instruction, which is shown in General Table III. With regard to most of the recommendations of the Commission action had been taken before the commencement of the period under review, but during the last five years additions have been made to the number of scholarships reserved for Muhammadans, and also to the number of members of that community appointed as inspecting officers. In one case in Bengal a Muhammadan gentleman has been appointed Honorary Joint Assistant Inspector of Muhammadan Schools.

237. **Muhammadan Education in Madras.**—The schools attended wholly or mainly by Muhammadans are shown in the following statement:—

	1886-87.		1891-92.	
Public Institutions.	Schools.	Pupils.	Schools.	Pupils.
Secondary School for boys	14	808	7	923
Ditto girls	2	88	13	709
Primary Schools for boys	622	22,028	976	42,358
Ditto girls	46	247	108	3,208
Special Schools	5		10	351
Private Institutions.				
Advanced	...	...	28	1,812
Elementary, for boys	...	...	512	13,910
Ditto, girls	...	...	9	163

Some private institutions are included among secondary schools for boys in the figures for 1886-87, and this accounts for the reduction in the number of these schools. The number of English schools has not changed; it includes two high schools, both in Madras, and three middle schools; in the former the attendance has declined slightly—from 386 to 362, but in the latter it has risen from 101 to 239. All the secondary girls' schools are of the middle vernacular class, and from a table showing the race and creed of pupils in the different stages, it appears that there is not a single Muhammadan girl in the secondary department of any English school. This table is given for the last four years only, and during that time the number of Muhammadan boys in the high stage has increased from 250 to 261, while there has been a large decrease—from 1,208 to 947—in the middle stage of English schools; in the middle stage of vernacular schools the number of boys has risen from 1 to 36, and the number of girls from 6 to 31. The large increase in the number of primary schools is chiefly due to the employment of a special staff of inspecting officers; in each of the four circles a Muhammadan Sub-Assistant Inspector has been appointed; ten districts have been provided with Muhammadan Inspecting Schoolmasters, and arrangements are being made to employ such agents in three other districts. For the Mappilla schools of Malabar there is a special Sub-Assistant Inspector, who has six Inspecting Schoolmasters under him, and nearly half of the total increase in the number of pupils in primary schools has occurred in schools for people of this class.

These schools are, however, somewhat unstable in character. In 1889 the Inspector wrote regarding them: "The most unsatisfactory feature of Mappilla schools is that they appear to depend wholly and entirely on the Government subsidy. If that were once withdrawn, the whole system would collapse. No fees are paid in Mappilla combined system schools. In the indigenous schools fees are paid at certain stages of the pupils' progress, but solely and expressly for the religious instruction afforded, that is, for instruction in the art of reading the Quran. Even these fees have, I understand, been discontinued in combined system schools where the Mullas who teach the Quran in ancient style are subsidized by Government; for the Mappillas are keen men of business and justly remark that, as Government is good enough to pay their Mullas, they do not see why they should pay in addition; yet the returns show that of the total number, 176 belong to the richer classes, 2,972 to the middle, and 12,018 to the poorer." Upon this the Director remarked: "The above state of things is partly the result of the anomalous nature of the so-called combined system schools. If the schools, as was proposed last year, are placed on the salary results system, and if small fees, according to the circumstances of the pupils, are levied, the objectionable character of these schools will be removed." Three years later all the combined schools had been converted into results or board schools, but the fees came to only R23 out of a total expenditure of R6,131.

The five special schools shown in the above table as in existence in 1887 included three training schools for masters with 68 students, of which two schools with 54 students were for Mappillas, one training school for mistresses with 11 students, and one industrial school with 168 pupils: in 1892 one of the Mappilla training schools had been replaced by three sessional schools with 33 students; the attendance in the other two training schools for masters had risen to 101, and in the school for mistresses to 16. The number of industrial schools was four, two being for girls, and the number of pupils in them was 199. During the five years the percentage of Muhammadan boys at school has risen from 28 to 42·2 and that of girls from 3 to 8·2; these figures are considerably above the general average for the whole Presidency, which are 22·5 and 3·6 per cent., respectively.

238. Muhammadan Education in Bombay.—The reports do not show the number of schools attended solely or mainly by Muhammadans; the most important schools appear to be the Sind Madrasa, which was opened in 1886-87, and now ranks as a high school with 53 pupils in the high and 103 in the middle section, and the schools of the Anjuman-i-Islam in Bombay, with 22 in the high and 111 in the middle section: both of these are aided institutions, but the latter is entirely dependent upon Government for its support, as the returns show that the entire expenditure was met from the Government grant of ₹5,846, nothing being realised from fees or other private sources. The Sind Madrasa also received very liberal aid from public funds, amounting to ₹13,042 against ₹1,245 from fees and other private sources. The conversion of a large number of mosque schools in Sind into aided primary schools has been described in the chapter on Primary Education; the increase in the number of Muhammadans attending school in other divisions is attributed to the appointment of ten Muhammadan Assistant Deputy Inspectors, and to the creation of special scholarships. Of the 66 scholarships given annually by Government on the result of an examination by the middle standard, 18 are reserved for Muhammadans, and 6 are open to Muhammadans and other backward classes, one of these 24 scholarships being given to each district. The scholarships given on the result of the upper primary examination are distributed in the same way, and in addition to these four scholarships are given annually on the result of the Entrance examination. These scholarships have been founded by Khan Bahadur Kazi Shahabudin, C.I.E., and are tenable for four years, the stipend being ₹10 a month for the first two years, and ₹15 a month for the last two years. Before 1891-92 these scholarships were not open to competition, but were given by selection. In the training schools for men the number of Muhammadans has fallen from 81 to 65, but in the schools for women the number has risen from 3 to 28. In industrial schools the number has increased from 85 to 109, and most of these are found in the Kadirdad Khan Schools described in a previous paragraph.

239. Muhammadan Education in Bengal.—The reports of this province do not show how many of the primary and secondary schools are attended wholly or chiefly by Muhammadans; in 1887 there were 12 madrasas with 2,289 pupils, of which 7 were managed by Government and the rest unaided; in 1892 the number had risen to 21 with 3,525 pupils; the Government institutions were the same as before, but there were 5 aided and 9 unaided institutions. The Calcutta Madrasa is classed as an Arts college, but since 1888 the students of the college department have attended the classes of the Presidency College, paying the Madrasa fee of ₹2 a month instead of the full fee of ₹12. The number of students in this department was 48 in 1892 against 15 in 1887. Two of the departments of this institution are returned as ordinary secondary schools, but all the scholars have been included in the above statement. One madrasa is a high English School, and two others contain Anglo-Persian departments in which boys read for the Entrance examinations; in the rest the general course of study is purely Oriental, but in some cases instruction is given in English as an optional subject. In the Arabic or Oriental Department the course of study lasts four years, and at the end of each year the students appear at a central examination. The number of successful candidates at this examination rose from 135 in 1887 to 224 in 1892. Three of the Government madrasas are maintained from provincial revenues, the expenditure from which was ₹24,393 in 1886-87 and ₹27,547 in 1891-92; the other four madrasas are maintained from the Mohsin Fund, and cost ₹32,426 in 1891-92 against ₹27,986 in 1886-87. This represents only about one-half of the educational expenditure from this fund, the remainder being spent upon the salaries of special teachers in high schools, scholarships, and part payment of schooling fees of Muhammadans; the expenditure under the last head was ₹19,647 in 1891-92 against

R11,672 in 1886-87. The scholarships given from this fund include 44 Arabic scholarships awarded on the result of the central examination of madrasas, 34 English scholarships tenable in high schools, 8 junior scholarships awarded on the result of the Entrance examination, 5 senior scholarships given to those who pass the First Arts examination, and 2 graduate scholarships. These are in addition to the Government scholarships mentioned in paragraph 267 of the last Review, and Muhammadans are also allowed to compete for all the general scholarships provided by Government.

In 1888-89 two Muhammadan Assistant Inspectors were appointed for Eastern Bengal and Behar, with instructions "to ascertain and report to the Inspectors the special educational wants of Muhammadans, and to endeavour to acquire influence with those in authority among their co-religionists in order to induce them to introduce into their system of education useful secular subjects, such as arithmetic, accounts, and the local vernacular," and also to enquire particularly into the distribution of the Mohsin Fund. The first reports of these officers dealt chiefly with the question of the medium of instruction, and as the opinions expressed differ considerably from those quoted in the last Review it is desirable to give them at some length. In Behar the Assistant Inspector "urges that the vernacular education offered to Muhammadans is of no value to them whatever, either in public or in private life. Vernacular education in Behar means in the majority of cases Hindi education. The Hindi of the school books is not, on the one hand, the current speech either of the country or of the towns; it is not, on the other, the language of the Courts, nor does it afford any help towards acquiring that language. The language of the Courts is and must remain Urdu, by reason of the multitude of legal terms that compose its vocabulary, even though for purposes of popular comprehension its processes are written in the Kaithi character. On the other hand, little encouragement or aid is given to the learning of Urdu in Muhammadan maktabs; while in middle schools the number of Muhammadan pupils is generally too small to justify the separate appointment of a teacher of Urdu." The Assistant Inspector of Eastern Bengal was equally opposed to the system adopted with regard to the vernacular. He divided maktabs into three classes:—"(1) Koran schools, in which the recitation of the Koran is taught by a mianji, often acquainted with nothing beyond the Arabic character, and not always with that. These, he says, have no educational value whatever, and should cease to be included in our returns. (2) Maktabs of a purely religious character, in which, in addition to the Koran, the ritual and tenets of Islam are taught in Urdu. (3) Maktabs of a partly secular type, in which some degree of Urdu or Persian literature is taught in addition to the Koran and the ritual. These last have a real value for purposes of secular education; but they receive from the Government no sort of encouragement, which is reserved for those maktabs in which a little Bengali is taught. 'It is true,' writes the Assistant Inspector, 'that the agricultural classes, who form the majority of the Muhammadan population of Bengal, speak a kind of Bengali. But in the education of their children they like to follow the example of the gentry, who consider the acquirement of Urdu as an essential accomplishment .... There are thousands of lower and upper primary schools. Those that desire to educate their children through the medium of Bengali have ample opportunities of doing so. But there are others who desire to educate their children through the medium of the Urdu language, and there should be some institutions for them also .... If some remuneration be given to the maktabs, a far better class of teachers than the present *mianjis*, whose names have become to some extent synonymous with ignorance, is likely to spring up. The passed students of our madrasas will then think it worth their while to become *mianjis*.

Hundreds of these young men go out of our madrasas, passing high examinations in Muhammadan law and literature, to meet with disappointment in the world and having no prospects for their maintenance. If maktabs be remunerated, there would be some opening for them.'" The same officer is also dissatisfied with the course of instruction given in the madrasas. "Students leave these institutions after a long course of training which has made them proficient in Arabic and Persian, while they are ignorant of the simplest facts of geography or history. Nor is Urdu taught; and it is a matter of notoriety that earned scholars in the classical languages often fail to express themselves grammatically in Urdu." In consequence of these representations proposals were made in 1891 to offer definite recognition, as well as encouragement in the shape of stipends, to maktabs teaching Urdu and Persian, on condition that a certain standard of useful vernacular instruction is introduced, and after the close of 1891-92 the Local Government sanctioned a grant of R20,000 for this purpose. Proposals have also been made for the reservation of a certain number of middle and primary scholarships for Muhammadans, for the establishment of a system of free studentships, and for changes in the distribution of the Mohsin Fund, especially the withdrawal of the payments made to zila schools for the salaries of Urdu and Persian teachers, in order to increase the amount available for paying the fees of Muhammadans in English schools. If this proposal is adopted the salaries of the teachers will be paid from the general revenues of the schools.

240. Muhammadan Education in the North-Western Provinces.—A list of Muhammadan institutions in the last report shows one college with 102 pupils in the Arts classes and 66 in the Law classes, 7 secondary schools for boys with 870 pupils, one secondary school for girls with 22 pupils, one primary school for boys with 32 pupils, 26 primary schools for girls with 1,313 pupils, and 1,790 indigenous schools with 18,083 pupils. It is probable that this list is not exhaustive, but includes only schools that do not come under the ordinary classification into primary and secondary, like the madrasas of Bengal.

The number of students in the Arts classes of the Muhammadan Anglo-Oriental College at Aligarh has increased from 41 to 102 during the last five years; only 80 of these are Muhammadans, the college being open to students of every creed and race. The Law classes had not been formed in 1887; in 1892 half of the 66 students were Muhammadans. The Government grant to the college has been raised from R500 to R600 a month. In 1891-92 nine students passed the B. A., and 16 the Intermediate examination of the Allahabad University; in 1886-87 the corresponding numbers were 7 and 11, but the examinations were those of the Calcutta University.

241. Muhammadan Education in the Punjab.—The number of schools intended for Muhammadans is not stated in the report, but the following figures show the extent of the progress of English education among the members of this community more clearly than those given in the tables of paragraph 228. In Arts colleges the number of Muhammadan students has increased by 52·7 per cent., the increase among Hindus being 42·4, and among Sikhs 34·6 per cent. In the last three years the number of Muhammadans in the secondary departments of English schools has increased by 16·5 per cent., the corresponding figures for Hindus and Sikhs being 5 and 10·2 respectively. Thus Muhammadans have made greater progress than either of the other two races, but even if this rate of progress is maintained, it will be many years before they will be able to recover the ground they have lost, for only 28 Muhammadans out of 10,000 of school-going age are in the English secondary stage against 89 Hindus and 69 Sikhs. "The backward condition of Muhammadans, as regards higher education, is due mainly to the fact that they held aloof until recently from the study of English,

and that the more highly paid appointments in the public service, for which a knowledge of that language is generally required, were in consequence conferred chiefly on Hindus. Year by year the proportion of appointments for which a knowledge of English is held to be essential continued to increase, whilst the number of those to which any but the lowest salaries are attached, that can be held by men who have received a purely Oriental education, constantly tended to diminish; and hence, as time went on, the inferior position of Muhammadans employed in the service of Government became more and more evident. Of late years the Muhammadan community have fully realized the mistake which they made in the past, and have manfully striven to retrieve it. Their efforts in this direction have, moreover, been assisted and encouraged by Government. The task, however, is by no means an easy one; as the comparative poverty to which a large section of the most intelligent classes have been reduced by their former apathy in this matter renders it impossible for them, in many cases, to bear the expense of maintaining their children at high schools and colleges and defraying the cost of their education, which is now much higher than it used to be a few years ago." The assistance given by Government took the form of Jubilee scholarships; 44 scholarships of the value of R4 a month were offered annually to Muhammadans who succeeded in passing the middle school examination, but without obtaining open scholarships; 14 college scholarships were also created, 8 of R8 a month to be given on the result of the Entrance examination, 4 of R10 at the Intermediate examination, and 2 of R14 at the B. A. examination, all of these being in addition to the ordinary scholarships, which remained open to all classes of students.

These scholarships were sanctioned experimentally in the first instance for five years, but the Local Government has recently sanctioned their continuance for five years more to the great satisfaction of the leaders of the community. It has been arranged also that in all schools and colleges one-half of the free studentships and one-half of the studentships at half-fee rates shall be reserved for Muhammadans. The change in the attitude of the leaders of the community towards higher, and especially towards English, education is shown in the following extract from the report of the Inspector of the Lahore Circle for the year 1888-89:—

"The Muhammadans have wakened up to the necessity of educating their sons. Their old backwardness and dislike of English education is being largely removed. In fact, they have of late taken to English education as the only means of bettering their condition and of rising to positions of trust and responsibility under Government. Bearing upon this subject, and as showing that they recognize also the value of self-help and private enterprise in the matter of education, the following events of the year deserve to be prominently noticed in this place. The Muhammadan Raises and Makhdams of Mooltan have started an Anjuman-i-Islamiya in their city, the principal aim of which is to promote education among the Muhammadans. They have established a primary school to which allusion has already been made elsewhere in this report.

"The Muhammadan Association, Lahore, called the Anjuman-i-Himáyat-i-Islam, have, as already stated, raised their Primary School to the status of a Middle School. The Muhammadan Association of Amritsar have raised a fund by subscription to enable some of the Muhammadan students of slender means who failed at the late B. A. examination to read for another year and go up for their examination again.

"In the last place I would refer to the third Muhammadan Educational Congress held at Lahore on the 27th December 1888 and the following three days, as affording a proof of the power of combination among the Muhammadans

for the purpose of raising their condition by means of higher education. This Congress was attended by over 200 members, some of them persons of great consideration and influence in Muhammadan society in the North-Western Provinces and the Punjab. Among others, the following important resolutions were passed :—

"'RESOLUTION I.—Resolved, that this Congress is of opinion that it is necessary to assist by means of Wazifas (scholarships) poor Muhammadan students, who have passed the Entrance examination, and who are intelligent, to pursue their studies in any college they may like to join ; and also to assist intelligent and poor Muhammadan students, who have passed the Middle School Examination, to read in Zila and other schools up to the Entrance Examination. And that Committees be appointed in the Punjab, in the North-Western Provinces and Oudh, and in other provinces, if need be, who should superintend this work, and that each Committee should present a report at the next Muhammadan Educational Congress, stating the mumber of students who have passed the next Entrance and Middle Class Examinations, and have been so assisted and are reading in Colleges and schools.'

* * * * * * *

"'RESOLUTION III.—Resolved, that this Congress recognises the necessity of establishing Standing Committees of the Muhammadan Educational Congress at the head-quarters of every district ; these Standing Committees to be subordinate to the General Educational Committee of the Province, and all to be under the general control of a Central Standing Committee with its head-quarters at Aligarh and the Secretary of the Muhammadan Educational Congress for its Secretary. That it will be the duty of the District Committee and the General Committee of the Province to keep in view the educational condition of the district and to try to create the means of improving it. It will also be its duty to collect and provide funds for establishing at least one scholarship for the benefit of students who may be anxious to receive high education, and, if possible, for such students also as may be reading in the secondary department of schools. The officers who may be entrusted with the duty of collecting and disbursing the funds will be called Amánatdár-i-Qaum (Trustees of the Nation). Every Committee of this description will have the power of appointing by majority its own Amánatdár and National volunteers.'

"'RESOLUTION IV.—Resolved, that this Congress is of opinion that the want of general education among the Muhammadans has been the cause of the growth of certain evil and objectionable customs among them, and they have consequently become so poor and penniless that their estates are day after day slipping out of their hands. This is especially the case with Muhammadan agriculturists, who are being ruined by these evil customs, and cannot for this reason afford to pay the expense of educating their children. The way to eradicate these customs is to spread general education among the community, and by its means to impress on their minds the evil results of such customs. That expenditure on the occasions of marriages and deaths be restricted within certain limits, and persons breaking this rule may be made to pay the penalty by paying a certain amount of fine to be credited to the Amánátdar of the Standing Committee of the district, who will spend it for purposes of education in accordance with the rules.'

* * * * *

"'RESOLUTION VII.—Resolved, that the Muhammadan Educational Congress is of opinion that such girls' schools (zánana maktab) be established for the Muhammadan girls as would meet their educational requirements, and be strictly in conformity with the traditions and respectability of the respectable and well-bred Muhammadans, and in accordance with their religious injunctions.'

* * * * *

"'RESOLUTION VIII.—Resolved, that the Muhammadan Educational Congress is agreed that the Muhammadan zakát funds may be expended for the education and subsistence of the orphan and poor Muhammadan boys and girls and that this would be the legitimate use of the zakát funds.'"

242. **Muhammadan Education in other Provinces.**—The number of public institutions for Muhammadans in the Central Provinces is not stated in the reports; there are no private schools for advanced teaching of Arabic or Persian, and no Koran schools. The percentage of children at school is three times as high among Muhammadans as among Hindus, both for boys and for girls. In Lower Burma the only public school for Muhammadans in 1887 was a department of the Akyab High School containing 48 pupils. In the beginning of 1887 a Muhammadan Deputy Inspector was appointed to the Arakan division, which contained a considerable number of Koran schools; in order to induce the teachers of these schools to introduce some secular instruction into the course aid was offered on very easy terms, and at the end of 1890-91 the number of schools recognised by the Department had risen to 24. In the following year grants were refused to schools in which arithmetic was not taught, and 19 of the schools disappeared from the list of public institutions, while only two were added to the list; so that in March 1892 there were only 7 schools with 370 pupils, all of the primary grade. In Upper Burma there is only one school that satisfies the conditions for recognition, all the others being Koran schools, in the majority of which both pupils and teachers know only Burmese; only the descendants of the mullahs, whose occupation is hereditary, learn to read from Arabic characters. "It is common to find the Moslem population sending their children to monastic schools to learn Burmese and supporting the pongyis. Sometimes the children assume the yellow robe." In Assam the reports do not show any public schools for Muhammadans, but there are a large number of maktabs; a system of payment by results for these schools was introduced some years ago, but it has not proved popular, and in 1891-92 only two institutions competed, sending up 11 candidates, who earned R62. Three Muhammadans have been appointed as Sub-Inspectors in the district of Sylhet, where the majority of the population profess this religion. Special junior scholarships have been created for Muhammadans who pass the Entrance examination and do not obtain open scholarships; the number of boys who passed this examination increased from 3 in 1887 to 11 in 1892, of whom 7 obtained scholarships. The holders of these special scholarships receive senior scholarships if they pass the First Arts examination at the end of two years. In Coorg there were three schools in 1887 with 114 pupils, but one of these was in a very unsatisfactory state, and was afterwards closed for want of pupils: in 1892 there were two primary schools with 86 pupils, both managed by municipalities. Most of the Muhammadan residents of Coorg belong to the Mappilla or other backward races; "they appear to come to Coorg to engage in trade or to work on the plantations and leave their families in their native places." This view is borne out by the census tables, which show that there are only 38 female among every hundred Muhammadans. In Berar there were 68 primary schools for boys in 1887 with 3,694 pupils, and 8 primary schools for girls with 283 pupils; in 1892 the number of boys' and girls' schools had risen to 72 and 12, and the number of pupils in them to 3,930 and 492, respectively. Until the end of 1891 all the schools were under Government or municipal management, but most of the Government schools were transferred to District Boards in the beginning of 1892. In 1886 these schools were placed under the charge of a Muhammadan Deputy Inspector. Special standards have been prescribed for them, Urdu being the medium of instruction, but since 1887 Marathi, the official vernacular, has been a compulsory subject of study in all but the lower primary classes. Last year a

suggestion was made that these schools should be abolished and Urdu added to the course of study in the ordinary primary schools and the question is still under consideration. The wealthy members of the Muhammadan community have done a great deal to further the cause of education among the poorer classes by founding scholarships, giving accommodation in their own houses for schools, and in other ways.

CHAPTER XII.

EDUCATION OF NATIVE CHIEFS AND NOBLEMEN.

243. Rajkumar Colleges and Schools.—The number of institutions of this class is naturally very small, and some of the most important of them, such as the Mayo College at Ajmere and the Rajkumar College at Indore, are situated in parts of India not included within the scope of this Review. Three provinces only, Bombay, the Punjab, and the Central Provinces, devote a special section of the annual reports to schools of this class, but one such school is mentioned under a different heading in Bengal: in the other provinces there are apparently no special schools for the sons of Chiefs. In Madras a proposal was made in 1886-87 to establish a school for the sons and relatives of zemindars, but the Court of Wards were not in favour of the proposal, and the Local Government was of opinion that such an institution was not then required, but that it would be sufficient to bring a larger number of minors to Madras to be educated.

In Bombay the most important institution is the Rajkumar College at Rajkot in Kathiawar. In 1887 there were 44 students on the rolls; during the next three years the number gradually fell to 28, but it has since risen to 41. In 1891-92 the first student of the college succeeded in passing the Matriculation examination, and 14 of the students are now in the high stage, preparing for that examination. In addition to the ordinary course of study some of the senior students attend the Sessions Court, and also receive instruction in Law. Physical exercise is not neglected: the boys play cricket, and have regular instruction in cavalry drill; Kumar Ranjitsingji of Jamnagar, who played for Cambridge in the inter-University cricket match of 1893, was in the first class of the College in 1887. For those who cannot afford to pay the high fees of the Rajkumar College there are three talukdari schools, two of which contain high departments; the Girasia School at Wadhwan has 57 scholars, 12 of whom are in the high stage, and the Scott College at Sadra has 30 pupils, 8 in the high stage. There are also two schools for Mirs in Sind, one of them, with 20 pupils, being an English school, and the other, with 52 pupils, a vernacular school. A grant of R4,200 has been sanctioned for these two schools. The total cost of the Rajkumar College in 1891-92 was R57,026, including R7,418 from the revenues of Native States, and R33,100 from fees: the latter gives an average of R848 for each scholar. The Girasia School cost R8,993, and the fees amounted to R8,422, or an average of R148. The cost of the Scott College was R2,828, nearly half of which was met from fees, the scholars paying R48 each. Neither of these schools received any aid from public funds. Over 500 children of the same class, including many girls, are found in ordinary schools in various parts of the province. One married girl, the daughter-in-law of the Nandad Chief, remained long enough at school to pass Standard V.

In Bengal the Nawab of Murshidabad's Madrassa is the only institution of this class; it is attended by the sons of relatives and retainers of the Nawab. Although classed as a madrasa, it is in reality a high English school, but none of the students have yet passed the Entrance examination. The number of pupils was 58 in 1887, and 59 in 1892, of whom 14 were boarders. The total expenditure in 1891-92 was R15,219, all of which was borne by provincial revenues, in accordance with an agreement entered into in 1882, when the pension of the Nawab was reduced. In 1886-87 there was a similar institution with 17 pupils in the suburbs of Calcutta, attended by the sons and grandsons of the late King of Oudh, but it was abolished after his death in the beginning of 1888.

The Aitchison College at Lahore was opened in November 1886, but the building was not completed till four years later; one half of the cost was subscribed by the various Chiefs and the other half was given by Government. In March 1887 there were 21 scholars, including 12 who had been transferred from the Wards' School at Umballa, which had been abolished. The number of scholars rapidly increased, till in 1892 there were 80 on the rolls, besides 6 boys who were resident boarders, but attended the classes of the Government College. The fees are very high, being R50 a month, exclusive of the cost of food, private servants, horses, etc., but reductions are made in some cases, and 30 scholarships are given to boys of good family who are unable to pay the full fees. In 1891-92 six boys passed the Entrance examination, and five the year before. "The institution is presided over by a popular Governor, Lieutenant-General Black, C.S.I. well known to all the Chiefs and the leading gentlemen of the province, and is provided with a strong and able staff of teachers." Due attention is given to riding and out-door games and exercises, and a gymnasium has been provided. Attempts have been made to ascertain the number of children of school-going age of this class in the province, and the number who are under instruction either in schools or at home: the statistics are not complete, but it appears probable that the number of boys not under instruction is very small.

The Rajkumar School at Jubbulpore is attached to the Government College, and is under the management of the Principal of that institution. The number of pupils was 12 in 1892 against 10 in 1887. The smallness of the number is partly due to the locality chosen for the school, which is not easily accessible from the large number of feudatory States in the south-east of the province. In order to overcome this difficulty, a proposal has recently been made to transfer the school to Raipur. "Much attention is paid to physical training. All the boys ride well, and are practised in drill, gymnastics, and wrestling. They also play lawn-tennis and rounders. Mr. Young's idea of education for his pupils would seem to be on the lines of that of the ancient Persians, *viz.*, to teach them to ride well, shoot straight, and speak the truth,—a system which is, perhaps, not unsuitable for Native Chiefs. If he succeeds in this, as he doubtless will, the object of the school will be fulfilled, and the young Chiefs will be well fitted for the responsibilities attached to the management of their estates when their training is over." Ordinary school work is not neglected, for two boys passed the Entrance examination in 1891 and are now continuing their studies in the college. The boys' knowledge of the world is enlarged by occasional trips to other parts of India: thus in the Christmas vacation of 1887-88 nine out of the ten pupils were taken by the Principal to Bombay. Some of the Chiefs have established schools for their own relatives; in the report for 1886-87 three such schools were named, but no returns were submitted by them in 1891-92, and in the report for the preceding year they are said to be worse than useless.

CHAPTER XIII.

PRIVATE INSTITUTIONS.

244. **Meaning of the Term.**—The distinction drawn by the Education Commission (Report, paragraph 355) between public and private institutions includes under the former class all institutions under public management, and "all privately-managed schools that are in receipt of aid or are regularly inspected by the Department," and all institutions which, "though neither aided nor inspected, regularly send pupils to examinations of the Department or of the University, participate in the benefits of the scholarship system, and therefore form an essential part of the system of public instruction." "Under this definition, private institutions will include all indigenous schools which have not accepted the departmental standards of instruction; and all others in which the course of instruction, however advanced, does not conform to the standards prescribed or accepted by the Department or by the University, and which submit to no public test." Since this definition was drawn up, attempts have been made in several provinces to bring under the influence of the Department some of the more important classes of private institutions by the establishment of new standards of examination, including the most valuable parts of the indigenous system, and, where necessary, adding new subjects. In this way many of the schools formerly classed as private have been brought under inspection, and some are aided by the Department, but as they do not form part of the regular system of primary and secondary schools, and are not included among the recognised classes of "special" schools, they are still shown as private institutions. The aided indigenous schools of the Punjab, which have already been referred to, furnish one example of this kind, and it will be shown below that in Madras and Bengal some of the Sanskrit schools have accepted departmental standards and aid. The distinction between private and unaided schools is often very slight and even arbitrary; thus in Bengal indigenous vernacular schools conforming to the departmental standards, but receiving no support from public funds, are classed as unaided if the number of pupils is not less than 10, but as private schools if the attendance falls short of that number; in Madras some secondary English schools were classed as private in 1886-87, because they did not charge the fees prescribed in the school-fee notification. It is impossible, therefore, to draw any hard-and-fast line of distinction between public and private institutions, though the classes of schools included under the latter designation are practically the same as in 1883.

245. **Recommendations of the Commission.**—The recommendations regarding elementary indigenous schools have been dealt with in the chapter on Primary Education. With regard to schools of a higher order, the Commission recommended that the best practicable method of encouraging those desirous of recognition should be ascertained by the Department in communication with pundits, maulavis, and others interested in the subject. The following paragraphs will show what action has been taken in this matter by the various Local Governments, and will also give some account of the private institutions in which the course of instruction has not yet been materially influenced by the departmental system.

246 Scholars in Private Institutions.—The following table gives the number of private institutions of each class shown in the returns for 1886-87 and 1891-92 and the number of pupils in them :—

Private Institutions.

	1886-87.		1891-92.		REMARKS.
	Schools.	Pupils	Schools.	Pupils.	
Advanced Institutions, teaching—					
(*a*) Arabic or Persian	5,717	53,745	3,088	39,534	
(*b*) Sanskrit	1,868	22,572	2,427	28,833	
(*c*) Other Oriental classics	93	1,062	44	684	
TOTAL	7,678	77,379	5,559	69,051	
Elementary Institutions, teaching—					
(*a*) A vernacular only or mainly. for boys	11,353	162,559	19,235	244,489	
(*a*) A vernacular only or mainly. for girls	232	3,034	269	4,433	
(*b*) The Koran for boys	10,615	90,614	12,560*	159,755*	* Includes girls' schools for the Province of Bengal.
(*b*) The Koran for girls	1,511	12,620	668	8,117	
(*c*) Other subjects for boys	1,415	24,928	721	20,694	
(*c*) Other subjects for girls	24	1,551	105	1,372	
TOTAL	25,150	295,306	33,558	438,860	
GRAND TOTAL	32,828	372,685	39,117	507,911	

In the last Review Sir Alfred Croft pointed out that the returns of private institutions were incomplete, and that there was room for doubt regarding the accuracy of the classification adopted, more particularly with respect to the schools for advanced teaching of Arabic and Persian. The above table proves that this opinion was correct, for nearly half of the schools returned as advanced in 1886-87 are now included among the Koran schools. It is probable, however, that many, if not most, of those still returned as advanced have no right to be so classed. The decrease in the number of schools, both advanced and elementary, in which the subject of instruction is not specified, also indicates more accurate classification, for most of these schools properly belong to one or other of the recognised classes of schools. Thus, the Bombay returns for 1891-92 show only 4 schools teaching other Oriental classics against 37 in 1886-87, and as the scholars that have disappeared from the list were chiefly Hindus and Muhammadans, it is probable that the schools have now been shown in the first two classes of the table; the schools that remain are attended by Jews and Parsis only, and the languages taught are probably Hebrew and Pahlavi. The other 40 schools are all in the North-Western Provinces, and

are attended by Hindus and Muhammadans, but the language taught is not named. Many of the elementary schools teaching "other subjects" are vernacular schools intended for special classes of the community, such as the schools for low-caste pupils in the Punjab, and the *Kyoungs*, or Buddhist schools, in the parts of Bengal bordering upon Burmah. A few schools do not belong to any of the recognised classes, and in fact can scarcely be considered as forming part of the educational system of the country. As an example of this class the *ganak* schools of Assam may be cited, in which horoscope-making is taught.

The greater completeness of the statistics is indicated by the increase in the number of Sanskrit, vernacular, and Koran schools. Sanskrit schools appear to have increased in number by nearly one-third, though, as will be shown later, there is reason to believe that their number is steadily diminishing. Elementary vernacular schools appear to have increased by nearly 70 per cent. in all provinces together; in Bengal their number in 1892 was eight times as great as in 1887, because in the earlier year schools with less than 10 pupils were not included in the returns. In 1887 Koran schools were shown in the returns of only two provinces, but now they are found everywhere except in the Central Provinces and Coorg. In some provinces the educational authorities are of opinion that these schools have no value whatever, and ought not to be included in the departmental returns. As this is an important question, the opinions are given at length in the next paragraph.

247. Koran Schools.—The measures taken for the improvement of these schools have been explained in the chapter on Muhammadan Education; the extracts from the provincial reports given below refer to those schools which have not yet accepted the departmental standards of instruction.

Madras.—In 1888 the Director wrote:—"Mosque schools are likely to play an important part in the education of the Muhammadan community, if only they are placed on a more satisfactory footing. As they are conducted at present, however, they are not beneficial to the community from an educational point of view." "The mosque schools in South Canara are nearly all conducted by Mappilla teachers for Mappilla children. They are, as a rule, held in dark and dirty rooms or verandahs, often not in, but close to, a mosque. The teachers are generally Mappillas, ignorant of Hindustani and Canarese, and even of written Malayalam. They can speak Malayalam and read the Koran in Arabic, and that is all they can do. . . . . The boys sit in a line with their backs to the walls of the room. In front of each is a book placed on a wooden stand with cross legs and the boys read out aloud at the same time, each usually a different lesson. Nothing in taught except reading the Koran. . . . . Usually boys do not attend school more than a year. Sometimes a school lasts for five or six months only."

Bombay.—Most of the mosque schools in Sind have added some secular subjects to their curriculum in order to qualify for aid, but no information is given regarding the schools that have not accepted the departmental standards.

Bengal.—In 1890 the Muhammadan Assistant Inspector of Eastern Bengal wrote:—"The Koran schools, in my opinion, cannot be called educational institutions. Nothing is taught in these institutions except the alphabet of the Arabic language and the recitation of the verses of the Koran. If Koran chanting constitutes education, more than 90 per cent. of the Muhammadans are educated. Every Muhammadan, if he is truly so, knows the recitation of all or some of the verses of the Koran. Every Muhammadan considers it his first and foremost duty to teach his children how to recite the Koran. Not only boys, but even the girls, are taught this. Every well-to-do Muhammadan engages a *mianji* to teach his children, and the *mianji* invites the neighbouring poor Muhammadans to place their children also under his tuition. There are thus innumerable Koran schools, even half of which do not seem to be

returned. In most cases these *mianjis* are totally ignorant and illiterate men, acquainted only with the alphabet of the Arabic language, and a few of them seem to boast that they have learnt to recite the Koran without making even that acquaintance. Under these circumstances, I am of opinion that the purely Koran schools, in which nothing of the Urdu or Persian is taught, should not be returned, and their pupils should not be counted as pupils under instruction. The amount annually spent in counting them might be more usefully spent." This opinion is endorsed by the Assistant Inspector of Muhammadan Education for the Behar Circle, and the Inspector of that circle considers that the retention of Koran schools in the returns would justify the inclusion, under the section of European Education, of the Sunday schools kept up for the benefit of Christian children.

Punjab.—Regarding the Koran schools of the Punjab the Director says:—"Many of the teachers in these schools are unable to read or to write, not a few are blind, and the great majority are quite incapable of teaching anything but the sacred text, which they know by heart."

Burma.—In this province also it is stated that the majority of the schools "do little beyond the repetition by heart of a few uncomprehended Arabic verses from the Koran." Most of the scholars do not learn even the Arabic alphabet.

Assam.—In 1887 the Director wrote:—"I quite agree with Mr. Clarke's remarks concerning the Sylhet *maktabs*—that they can hardly be reckoned as an educational figure, and go even further, and say that the same applies to every elementary *maktab* in the province."

248. Provincial Returns of Private Schools.—The next table shows the distribution of the different classes of private schools in 1887 and 1892:—

Province.	1886 87.					1891 92.				
	Arabic or Persian.	Sanskrit	Vernacular.	Koran.	Miscellaneous	Arabic or Persian	Sanskrit	Vernacular.	Koran	Miscellaneous.
Madras	6	29	1,719	...	34	28	118	2,845	412	...
Bombay	227	23	1,485	852	303	29	50	1,802	685	201
Bengal	1,723	935	575	...	988	1,294	1,694	4,627	5,969	284
North-Western Provinces and Oudh	1,608	535	4,667	...	...	1,155	367	2,961	1,261	...
Punjab	2,113	265	2,775	11,274	100	566	122	1,608	4,439	319
Central Provinces	...	2	2	...	...	—	—	80	...	—
Burma, Upper	...	...	...	...	...	—	—	2,396	49	13
Burma, Lower	...	...	200*	...	5	—	—	3,149	217	—
Assam	30	78	128	...	9	12	76	9	192	9
Coorg	...	...	19	...	...	—	—	27	—	—
Hyderabad Assigned Districts	10	1	15	.	...	4	—	—	4	—
Total	(a) 5,717	(a) 1,868	11,585	12,126	1,439	(b) 3,088	(b) 2,427	19,504	13,228	826

* Inclusive of 28 Muhammadan schools (27 for boys and 1 for girls).

(a) In addition to these, there were 93 schools teaching some "other Oriental classic" which have been omitted from this table.

(b) Ditto, 44 ditto ditto ditto.

Schools for advanced teaching of Arabic and Persian have decreased in all provinces except Madras. As already stated, this is in a great measure due to more correct classification; but in the Punjab, where the decrease amounts to 1,547 schools, a great part of the decrease is due to the exclusion of schools with less than six pupils; this applies to all the private schools of the province. In Bengal, the North-Western Provinces, and the Punjab some of the schools contain Hindus, but in the other provinces the scholars are exclusively Muhammadans. Very few of the schools teach anything more than a classical language, for out of 39,534 pupils only 30 learn English, all of whom are found in Bengal, and 1 235 a vernacular language, most of these belonging to the same province. Sanskrit schools are equally exclusive, for out of 28,832 pupils only 36 learn English and 832 a vernacular, all of the former and the majority of the latter belonging to schools in Madras. The returns show a larger number of these schools in Madras, Bombay, and Bengal, but a smaller number elsewhere. It is probable, however, that their number is decreasing throughout India. Bengal and Burma show the largest increase in the number of elementary vernacular schools: in the former province most of these schools differ from unaided primary schools only in the number of their pupils, those with ten or more pupils being classed as public, and those with less than ten as private institutions. In Lower Burma many of these schools were formerly recognised as public institutions, but they do not come up to the higher standard now fixed by the Department for recognition.

249. Private Schools in Madras.—Special enquiries were instituted in 1887-88 into the number of schools for advanced teaching of Oriental classics, and the returns submitted showed 60 Sanskrit schools, of which 6 were classed as high and 54 as middle, and 28 schools for Arabic and Persian, of which 2 were classed as high and the rest as middle. Regarding the former the Director wrote:—"Whether Sanskrit institutions of a *quasi*-religious character are increasing or decreasing, there is no evidence on which to base an opinion; but the probabilities are that they have been gradually declining in number and in efficiency of late years. The time for their reconstitution on some basis of public expediency seems not to have come as yet, for in the recent discussions on the teaching of religion in Hindu schools, little or nothing has been said regarding the utilization of such institutions for purposes of religious instruction. They could not be ignored, did they hold a high place in the regard of orthodox Hindus." The description given of the Arabic and Persian schools appears to indicate that they were little, if at all, better than ordinary Koran schools. "The instruction given is of a most mechanical character, and the teachers, though generally men of some attainments, have no idea whatever of imparting useful instruction. Their programme resembles that of a Sunday school in England, in which nothing but the creed, the ten commandments, the Lord's Prayer, and a few verses of Scripture are taught, but with this great difference, that whilst in England such instruction is given in the vulgar tongue, in these schools it is given in a language which few of the pupils understand. But even in these stereotyped schools a change for the better seems to be setting in, as a few managers have already expressed their wish to send teachers to be trained at the elementary Muhammadan Normal School, Madras, in order that they may supplement their antiquated religious teaching by teaching according to the standards." In the following year an addition was made to the code authorising the payment of salary grants at the rate of one-third of the total salary to qualified teachers in schools for teaching Sanskrit, Arabic, Persian, or Urdu. This rule has remained a dead letter as far as Muhammadan schools are concerned, but

8 Sanskrit schools have received grants, the total amount of which, in 1891-92, was R829. For these schools a special curriculum was drawn up in 1889-90, and in 1891-92 this curriculum was adopted in the Tiruvadi Sanskrit School, the most important school of this class in the province. It contains over 100 pupils, and is supported from funds attached to the Tanjore palace, the total cost last year being R2,028. The grant of diplomas of qualification to the successful students is said to be under contemplation. The students are fed and taught free, the subjects taught including the higher branches of Sanskrit philosophy, grammar, logic, and mathematics. Six other schools are classed as high schools, but the claims of several of them to that designation are said to be extremely doubtful.

The 34 "other schools" in the returns for 1887 included 15 high English and 19 middle English schools, most of which had been refused recognition by the Department, because they did not charge fees in accordance with the school-fee notification.

250. Private Schools in Bombay.—Very little information is given regarding these schools in the provincial reports. One of the most important is said to be a madrasa opened in 1889–90 at Veraval by a wealthy Muhammadan, with an establishment costing R250 a month, and with an attendance of 250 boys. The Vedas are taught in most of the Sanskrit schools; besides the Koran, the Granth and the Purans are taught in some of the indigenous schools of Sind. The unclassified schools appear to include a considerable number of English schools, for 2,124 of the pupils are reading that language.

Regarding elementary private institutions in general Mr. Jacob wrote in 1887:—"In a statistical return a large number of these schools makes a very imposing figure, and suggests a bright vision of progress spontaneously made by the people themselves, and costing the State almost nothing, which is irresistible to some minds, and especially to those persons who have never seen the indigenous school-master at his task. Several of my colleagues on the Education Commission, in my humble opinion, were entirely deceived by the glamour of indigenous school statistics; and the Bengal Presidency has, for years past, been living on a great reputation based entirely on figures of this sort. I believe, however, that it cannot be too often repeated that, while we welcome every educational agency however feeble, and do our utmost to improve it, these indigenous institutions are schools in a most rude and undeveloped condition, wild buds or embryos of schools, of slow and feeble growth. Nothing could be further from the truth, moreover, than to call them promising buds, which only need nursing to burst out into vigorous life, or buds of high quality, which, though slow in coming to maturity, will in the end reward our efforts in the same degree as the cess schools have already done. We shall greatly deceive ourselves, if we encourage this hope. We might as well expect a wild crab to bear us ribston pippins. The utmost that we can expect to do with the indigenous schools is to graft on to them a better system; but the fruit of this will take its character from the graft and not from the stock; and we must look for a large number of failures in the process, and not count on any speedy advance in point of quality."

251. Private Schools in Bengal.—The most important of the schools for advanced teaching of Arabic and Persian are classed as Madrasas, and shown as public institutions; many of the others differ very little from Koran schools, and would probably be classed as such if fuller information regarding them were available. The presence of nearly 3,000 Hindus in these schools is explained by the following extract from a report of the Assistant Inspector of the Patna Division—"*Maktabs* are a class of schools often found to be maintained by Hindus of the Kayastha class for the benefit of their children Ordinarily

speaking they are, however Muhammadan institutions. Their scale of fees is rarely fixed, and payments made by boys vary greatly by circumstances. In *maktabs* maintained by Hindus the Koran is not taught; the course consists of Persian literature and essay-writing only. The teaching of arithmetic is entirely neglected, and there is no attempt at class organisation"

The Sanskrit schools or *tols* have generally a much higher educational value than the *maktabs*, and of late years repeated attempts have been made by the Local Government to arrest the decline of these institutions, both in number and in efficiency. The first step was taken in 1878, when arrangements were made for a central examination for the award of Sanskrit titles and of prizes to the successful students and their teachers. A large number of other prizes and scholarships were also founded by wealthy Hindus, to be awarded on the result of this examination, and a few months after the publication of the rules the Dacca Sarasvat Samaj was established, with the object of holding similar examinations, and awarding similar titles and rewards. The institution of these examinations gave a great impulse to the study of Sanskrit in many parts of the province, but they had little or no effect on the *tols* of Nadiya, the chief centre of Sanskrit learning in Bengal, and the home of the Nyaya philosophy. These *tols* were founded under the patronage of the Hindu kings of Bengal, and after the Muhammadan conquest were maintained by Hindu zemindars, chiefly by gifts of rent-free land. In 1784 the East India Company sanctioned an allowance of 100 *sicca* rupees a month for the support of students coming from a distance, in place of a similar grant formerly made by the Raja of Nadiya; this allowance was stopped in 1829, but restored in the following year, the arrears being also paid; in 1886 it was increased to R150 a month, and two years later to R200. This, however, was not sufficient to check the decrease in the number of students, and in the beginning of 1891 Mahamahopadhyaya Mahesa Chandra Nyayaratna, C.I E., Principal of the Calcutta Sanskrit College, was deputed by the Local Government on a tour of inspection of the *tols* in Bengal, "the object of the inspection being to ascertain by personal enquiry which of the *tols* in the districts visited by him have the highest reputation, to report all necessary details regarding those *tols*, and, on the completion of his investigation, to submit recommendations for the encouragement of teachers and pupils at these institutions." The tour of inspection lasted four months, and in September 1891 the Mahamahopadhyaya submitted a report giving details regarding 761 *tols* in various parts of the province, and the various examining bodies. Regarding the causes of the decay of Sanskrit studies he says:—

"It was by means of gifts of rent-free land and of money that such studies were fostered in the past, and such gifts flowed freely from wealthy Hindus, as Hindus have always considered it to be an act of religious merit to help the teachers and learners of the Hindu Sastras. This belief has been changing of late, and so gifts have been becoming scantier and scantier in proportion. Rise in prices has again made it impossible for pandit teachers to maintain themselves and families, and their pupils into the bargain, upon such income as sufficed generations ago. Pandit families at the same time have come to be a less self-denying class than they used to be. The old custom of sons pursuing the calling of the father, which made pandits' sons grow up to be pandits, unless they happened to lack the mental power to do so, is losing its hold upon the country, and pandits' sons are accordingly being trained up for secular callings that promise better prospects from a worldly point of view than the calling of a pandit. Thus it is that families of pandits in Bengal have all been tending to assimilate themselves to the other Brahman families of the province, *i.e.*, have all been tending towards secular callings that hold out prospects of pecuniary gain.

Most of the best pandits of Bengal, all the Mahamahopadhyayas without exception, have trained up or are training up their sons or grandsons for other callings than their own—have given them or are giving them, in fact, an English education. It is but natural that men should prepare their sons for such walks of life as they think will be most advantageous to them, and this is what the pandits of Bengal have been doing. Non-pandit Brahman families hardly ever think of training up any juvenile member at a *tol* for the career of a pandit. Our *tols* are thus being threatened with a stoppage of supply of boys. An utter stoppage of supply is not likely to occur in the near future, but matters appear to be tending to this. The aggregate intellectual capacity of the present generation of *tol* students is lower than that of the past generation as unquestionably, I think, as the number is lower; and this deterioration in quality and decrease in number, judging from present circumstances, tends to be progressive. To arrest this decline very liberal help from individuals and from the State would be needed. The question of private help does not fall within the scope of this report, which needs only discuss how and to what extent it would be desirable and practicable for the State to render help for the improvement of *tols* and the encouragemen of Sanskrit studies."

The resources of pandits now consist chiefly of gifts received from wealthy persons of good caste at *sraddhas*, marriages, etc., and in order to obtain these gifts it is necessary for the pandits to rove about the country, thus interrupting the continuity of the teaching. The report shows that some places formerly famous as seats of Sanskrit learning now contain no *tols*, and in Nadiya the number of these institutions is only 8, with 99 students, while in 1816 there were 46 *tols* containing 380 students.

The measures proposed in the report, and since sanctioned by the Local Government, include (1) the payment of stipends of from Rs. 100 to Rs. 30 a month to the teachers of five selected *tols*, three in Nadiya, one in Behar, and one in Orissa, all of these being Nyaya schools, except one in Nadiya for the study of Smriti or Hindu Law, and (2) a system of rewards in the form of small stipends to be awarded annually to teachers and pupils on the results of periodical examinations, the stipends to teachers being tenable for one year, and those to pupils for two years, a term which may be extended to three years in the case of Nyaya students. The stipends to pupils are 160 in number, ranging from Rs. 2 to Rs. 4 in value; the stipends to teachers are 70 in number, and their amount ranges from Rs. 6 to Rs. 12 a month. The grant of Rs. 200 a month to Nadiya students will also be continued, and the total expenditure will be Rs. 18,000 a year. A grant of Rs. 25 a month as subsistence allowance for five Vedic pupils in the Calcutta Sanskrit College was also proposed, but this was rendered unnecessary by the liberality of the Mahanta of Tarakesur, who endowed the class by an investment of Rs. 12,000. The Behar Sanskrit Sanjivan, a local association established in 1887 for the advancement of Sanskrit learning, now holds preliminary examinations of two grades, intended for students preparing for the Government Title examination; this system of subsidiary examinations will now be extended to the whole province, and the stipends will be given on the result of them. The examinations will be conducted by the two associatious already named, and six others of the same character.

The report shows that though the practice of giving large sums of money for the support of Sanskrit schools is not so common as it once was, it has not entirely died out, for there is a long list of institutions supported by such gifts. The Maharaja of Darbhanga, who is himself a Sanskrit scholar, and one of whose ancestors is said to have received his estates as a reward for his learning, expends Rs. 18,700 annually on Sanskrit education. One of the largest Sanskrit

schools in the province is maintained out of the interest of a lakh of rupees given to the institution by the late Prasanna Kumar Tagore, the founder of the Tagore Law Professorship of the Calcutta University.

252. **Private Schools in the North-Western Provinces.**—The Director does not entertain a very high opinion of the schools for advanced teaching: "The institutions returned as teaching Arabic and Persian are mainly institutions in which the *Koran* is taught more or less by rote, and instruction given in the classical Persian on the old-fashioned method, to which the Muhammadans and many of the Kayasth families to a great extent still adhere." Aid is given to a few Sanskrit schools, "but I much doubt whether any appreciable benefit has resulted from the State expenditure. We have attached to some of our schools Oriental Departments of this class supported by endowments, which, however, are not of a character to encourage further State expenditure in this direction." The Oriental Department of the Canning College is said to be in a moribund condition, and the only institution of this type that has any vitality is the Government Sanskrit College at Benares. The elementary schools consist of Koran schools, elementary Sanskrit pathsalas, and a miscellaneous group of Kaithi and Nagri schools, where the current Kaithi script and bazar arithmetic are taught. 'There are specimens of nearly all these institutions to be found in these provinces among the aided institutions or attached in an unrecognised way to these institutions, and I have seen no good reason for believing that, with the very limited sum at our disposal for the education of the people, any money can be well applied in fostering their continuance."

253. **Private Schools in the Punjab.**—In the Punjab all schools that do not present candidates at the public examinations of the Department or of the University are classed as private institutions, even though they conform to the departmental standards in other respects. The special standards of examination prescribed for indigenous schools are not recognised as public examinations, though they are held by the Department, and hence a large number of aided schools are shown as private institutions. Out of the 1,608 elementary indigenous schools, 340 received aid in 1891-92, and 242 out of the 319 unclassified schools, most of which are elementary "venture" schools, or schools for low-caste childern. Under the head of elementary indigenous schools are included 349 mahajani schools with 10,763 pupils, in which boys are taught the Hindu system of accounts; printed books are not used in these schools, and the boys are not taught to write, except for purposes of accounts. The chief subject of instruction is the multiplication table up to 100 × 100, and the fractional tables from $\frac{3}{4}$ to $4\frac{1}{9}$ or $5\frac{1}{2} \times 100$. Under the head of Koran Schools are included all schools in which religious books are learnt by rote: this accounts for the presence of 865 Hindus and 41 "others" in these schools. An account of the schools for advanced teaching was given in paragraph 278 of the last Review, and the later reports give no farther information regarding them.

254. **Private Schools in other Provinces.**—In the Central Provinces the returns for 1886-87 showed 2 schools for teaching Sanskrit, and 2 for teaching a vernacular; but these all disappeared from the returns in the following year, and no others took their places till 1891-92, when 80 vernacular schools were shown in the returns.

It is remarkable that the returns for Burma show no private schools for advanced teaching of Oriental classics, though Pali is a recognised part of the course of instruction in indigenous schools, and in aided schools of this class must be taken up in all the classes above the first standard before any of the other optional subjects can be taken. In Lower Burma the elementary vernacular schools are to a great extent the "weedings of the list of approved

schools." They include 2,807 Burmese, 277 Karen, and 5 Chinese schools; a large number of them are monastic institutions, in which the pupils are mere servants or acolytes of the pongyis, and which "give very little hope of ever affording the most rudimentary education." The returns for Upper Burma include 2,396 Burmese, 10 Manipurian, 1 Tamil, and 2 Chinese schools; the Burmese schools include 28 under missionary management, 5 of which receive aid from the Department under the salary grant system, Government paying the salary of a certificated teacher. "Most of the schools are left to the care of a catechist, who, as a rule, confines his instruction to Biblical narrative and doctrine, and rarely troubles himself about teaching arithmetic. The missionary has usually no time to give to the school, especially when it lies some distance from his head-quarters." It is hoped that these schools will be improved by the appointment of passed pupils of the English schools belonging to the missions as teachers on probation, the Department aiding the schools with salary grants. Including two schools recognised by the Department, there are 12 schools for Manipuris containing 139 boys and 6 girls. "Of the various castes of the Manipuris, the Ponnas alone maintain schools in which instruction in Hinduism is imparted, and printed books in Bengali are used. The Panjika, a sort of Zadkiel's Almanack, by means of which ceremonial days are fixed, is invariably taught by the master, a Brahmin, who occasionally knows a little Sanskrit. The schools lie either in or near the temples—raised generally to Krishna and Radha, and known as Takur Ghats—and, when separate buildings, are sometimes, with their low mud walls, earthen floor, and children tracing their letters in sand, exact copies of the village school in India. Gautama is accepted as one of their deities, and children are taught to repeat in his honour a few verses from the Dasavatara. Female education is greatly neglected by this race. Some of the oldest Manipuris retain a faint knowledge of their mother-tongue." The two Chinese schools are both in Mandalay, and contain 23 pupils, the majority of whom are pure Chinese. "The Amoy Chinese is the sole subject of instruction. Rich Chinamen often send their sons to the Straits or to China for their education, but, when of semi-Burmese parentage, the boys usually attend the indigenous schools and occasionally proceed to the English school. As a rule the girls receive little education; but numbers of them are found in the indigenous lay schools in the large towns, and, as they are invariably bright, it is a great pity that their education is so neglected." Besides the schools included in the returns, there are about 2,400 kyaungs in the Shan States, but very little real education is given in them. "The present condition of education in the States is very elementary. The people have only just settled down, and in their struggle for existence have to impress the manual aid of every member of the family. Not a lay school exists, and female education is entirely neglected. The pongyis as a class are more than ordinarily ignorant, but are not so proud and prejudiced as in Upper Burma, and would readily take up secular education and accept lay teachers. The instruction given by them is purely religious and of a mnemonic character. They have not the slightest objection, and are indeed desirous, to have vernacular copies of our text-books wherever they are acquainted with Burmese. Few Shans can read or write. Arithmetic is never taught, though some of the priests are acquainted with astrological calculations. In most of the schools the pongyis know only Shan, and make their pupils learn by rote a Shan version of a Burmese translation of the Pali religious formulæ in common use .... Palm leaves are rarely met with, but each kyaung has a stock of coarse-papered large-charactered manuscript books Scribes, skilled in illumination, occasionally roam from kyaung to kyaung to copy rare manuscripts and to teach their art. These men, who are often laymen, are always well treated. In the majority of the schools the pupils do little work beyond acting as servitors to the pongyi."

In Assam a system of payment by results had been applied to the Sanskrit *tols* of the district of Kamrup before the Commission was appointed, and in the beginning of 1885 this system was sanctioned for all districts and extended to *maktabs* as well. At the last examination 30 out of the 76 *tols* sent up 71 candidates, of whom 41 passed ; the rewards paid to the successful candidates and to their teachers amounted to R74 and R571, respectively. Only 2 out of the 12 *maktabs* sent up 11 candidates, and the 7 who passed earned for their teachers R62.

CHAPTER XIV.

DISCIPLINE AND MORAL TRAINING.

255. **Orders of the Government of India.**—The question of discipline and moral training in schools and colleges was dealt with in paragraphs 26 and 27 of the Resolution on the last Review, and in December 1887 a letter was addressed to all Local Governments on the subject. This letter contained the following recommendations relating to schools:—

(1) that gymnastics and field exercises should be recognized as part of a regular course of school training, and that a system of marks and prizes for efficiency in gymnastics should be introduced;

(2) that punishments for breaches of discipline should be arranged so as to fall on the offender, and that with this aim the imposition of tasks, deprivation of privileges, a judicious use of the rod in the case of young pupils, and finally expulsion in cases of aggravated and persistent misconduct, are more suitable forms of punishment than fines;

(3) that good-conduct registers should be prescribed, extracts from which should be sent to the parents and guardians of the boy at stated intervals with the definite opinion of the head master on his character and behaviour, and that prizes for good conduct should be awarded at the end of each year;

(4) that hostels and boarding-houses should be established at the larger schools and colleges in large towns and cities for the accommodation of students whose families are not resident in the place where they are being educated;

(5) that selected boys from the higher classes of schools should be appointed monitors for the purpose of maintaining discipline during and, as far as possible, out of school-hours;

(6) that any boy who through want of diligence and attention to study fails to rise to a certain class by the time he has reached a certain age should be required to leave the school;

(7) that inter-school rules, defining the conditions under which pupils should be allowed to pass from one school to another, should be extended to all schools aided or supported by public funds as a condition of the continuance of such aid; and that the Senates of the Universities should be invited to use their influence to procure the adoption of this system in schools and colleges which do not receive aid from Government;

(8) that the provision of efficient training schools and colleges for teachers should be made a first charge against the educational grant, that the employment of teachers in all schools should be gradually restricted to those who have given satisfaction during a course of training, and that trained head masters should be introduced from England for definite periods of five to seven years for selected schools; and

(9) that teaching having a direct bearing upon personal conduct should be more generally resorted to. The Government of India, while admitting that this is provided for in some aided schools by religious instruction, and that even in some State schools religious instruction can, under well-recognized restrictions, be granted out of school-hours, considered that this was not sufficient; and it therefore, in concurrence with the Secretary of State, desired that consideration should be given to the proposal of the Education Commission that an attempt should be made to prepare a moral text-book based on the fundamental principles of natural religion.

For colleges it was suggested that the following regulations should be adopted:—

(*a*) that weekly meetings should be held by the Principal and the Professors to consider questions of discipline;

(*b*) that the Principal should have the power of ordering the expulsion or rustication of a student and of fining him for disorderly conduct; and

(*c*) that every Professor should have the power of suspending a student for a limited period of time and of fining him without reference to the Principal.

In the following paragraphs a brief summary will be given of the orders of the Government of India on each of these recommendations in the Resolution

of the 17th August 1889, and of the subsequent action taken by the Local Governments. The question of training schools and colleges has been dealt with in a previous chapter, and will not be again referred to.

256. Physical Training.—On this subject the Resolution merely repeated the recommendation that marks and prizes should be awarded for proficiency in gymnastics and athletic sports in all places where gymnasia and playgrounds have been attached to schools. The Madras reports for the last two years do not contain any information on this subject; but in the report for 1889-90 it is stated that 226 trained gymnastic and drill instructors were employed, of whom 29 were attached to colleges, 163 to secondary schools, 16 to primary schools, and 18 to training and other special schools. The chief agency for training these teachers is the Madras Physical Training and Field Games Association: in 1889 this institution contained 26 pupils, of whom 10 held Government scholarships, 9 were in receipt of scholarships paid from private sources, and 7 were students paying their own fees. During the previous year three examinations were held and 31 candidates passed, 17 with first class and 14 with second class certificates. These certificates are recognised by the Department, the highest rate of grant admissible under the salary-grant system being given if a teacher is appointed holding the first class certificate. For schools aided under the results system a set of standards has been drawn up, based upon Forrest's "Handbook of Gymnastics," which has been translated into the vernaculars of the province In all schools and colleges under public management gymnastic apparatus must be provided, the Educational Rules showing the apparatus required in each class of institution. In colleges and large high schools at least one lawn-tennis or badminton court must also be provided. Girls' schools under public management must be provided with dumb-bells, rings, and poles.

The Inspector of the Central Division of Bombay states that the publication of the Government Resolution "had the effect of calling attention to the close connection between moral and physical training and to the importance of play grounds and gymnasia; and all Government schools and most aided schools in my division have been overhauling their resources with a view to effect improvements in this respect." One aided school at Poona purchased a playground at a cost of R7,600, half of which was given by the Local Government. A grant of R7,500, in addition to a plot of ground, was given for a central gymnasium in Bombay; and the Government also undertook to pay half the cost of the instructors, up to a limit of R50 a month. In 1892 this institution contained 180 purpils, the total cost for the year being R3,223, of which only R350 was paid from public funds. In most of the Government high schools gymnasia or playgrounds, or both, have been provided, and cricket is very generally played. In training colleges a gymnastic course is obligatory, and much importance is attached to it. "This has not only an excellent effect on the health and general effectiveness of the students, but it tends to spread an interest in the subject, and the new trained men, as a matter of course, introduce school drill and gymnastics wherever they go. Kindergarten exercises, which, involve a systematic training of the body, are now everywhere expected from the new generation of teachers, and there can be no doubt that a great improvement in school discipline has been the result. In a good Local Board or Municipal (primary) school the children now-a-days change classes, assemble, dismiss, and otherwise act together with a precision and orderliness which would formerly have been thought impossible." The extent to which the primary schools have been affected may be judged from the fact that in the Northern Division alone the number of schools possessing simple gymnastic apparatus has risen from 255 to 560 during the last five years. The Grant-in-aid Code does not offer any grants to schools in consideration of instruction in gymnastics, though special grants may be given for the purchase of apparatus.

In Bengal most of the Government colleges have been provided with gymnastic apparatus, and cricket and football are played by a considerable number of students, inter-collegiate matches being occasionally played. This is true also of a few colleges under private management, but the high price of land in Calcutta renders the provision of suitable playgrounds an impossibility for most of the colleges and schools. Most of the zila schools have been provided with gymnastic apparatus, half of the cost being paid from the unspent balances of the schools and the other half subscribed locally. Instructors have also been provided for most of these schools. In some of the private high schools indigenous games are encouraged where funds are not available for the purchase of apparatus. For aided schools it has been ruled that when a revision of the grants takes place, the existence or non-existence of provision for physical training shall be taken into consideration, but no definite rules are laid down. Drill and gymnastics have not been introduced in the training schools, and nothing has yet been done in middle and primary schools.

In the North-Western Provinces cricket is played in most of the zila schools. "The best zila schools," says one Inspector, "can make a fair fight against an ordinary British regiment or battery; thus Saharanpur played five matches against troops marching through the station and won three of them, while the Meerut Zila School defeated both of the batteries quartered there." In all the circles annual tournaments are held, to which most of the zila schools send representatives. In some cases the competition includes football, fencing, etc., in addition to cricket. In the town (middle) schools physical exercises are being gradually introduced, either in the form of ordinary school athletic sports, or English or indigenous games, while in one circle school drill is practised in all the schools. The Inspector of the Benares Division, Rai Bahadur Lakshmi Sankar Misra, says: "At Azamgarh I managed to get up sports on a grand scale whilst the Commissioner of the Gorakhpur Division was there. About 500 boys were present on the occasion, and prizes were distributed to the winners by the Collector of Azamgarh. The most important event of the day was a tug-of-war between the officials present at Azamgarh and the Educational Department. The official team consisted of the Commissioner, the Judge, the Collector, the Joint-Magistrate, the Assistant Magistrate, the Civil Surgeon, the Engineer, the Munsif, the Deputy Collector, and the Assistant Surgeon. On the educational side, in addition to myself and the Deputy Inspector of Gorakhpur, there were four village school teachers and five students. The educational side obtained an easy victory." Such gatherings do far more than any departmental rules to increase the popularity of physical exercises. In the village schools, also, a commencement has been made, but money cannot be found for the purchase of apparatus, except in a few isolated cases. A guide book on drill has been published in the vernacular for the use of the teachers of these schools, and in some cases school drill has been satisfactorily taught. The managers of aided Anglo-vernacular schools "are expected to encourage the pupils of their schools to take part in physical exercises and manly games," but no grants are offered on this account.

In the Punjab Education Code a special chapter is devoted to physical training. Three distinct courses are prescribed for primary, middle and high schools, each comprising drill, gymnastics, and English and Indian games. In the normal schools the high school course is taught, and the students also receive instruction in the principles of physical training and in the method of teaching the primary and middle school courses. Under the rules physical training is compulsory in all schools under public management, and in aided schools grants are given as for other optional subjects. In every board school a teacher or monitor is to be appointed to give instruction in this subject, and

in every district an itinerant teacher to train the monitors. Quarterly competitions are to be held in the schools and an annual athletic tournament in each district, open only to those who have obtained certificates of proficiency in the schools. A cricket tournament is also to be held annually in each circle, open to all schools under departmental inspection. Local Boards are required to supply the necessary apparatus for secondary schools, and are expected to arrange for the provision of playgrounds for all schools, primary or secondary. These rules are of recent introduction, and have not yet been fully carried out in all parts of the province, though considerable progress is reported from all the circles In some cases local interest has been awakened, and money has been subscribed for prizes at the annual tournaments. For the last cricket tournment at Rawalpindi the District Board and Municipal Committee allotted R700 in addition to some prizes given by private individuals; a shield and a cricket belt were purchased to be given to the champion team and held for one year; ten teams competed, the Rawalpindi Mission School proving the victors.

In the Central Provinces all the secondary schools and most of the primary schools are provided with gymnasia, and English games, such as cricket, rounders and badminton, are practised in high schools and in some middle schools, while the scholars of primary schools are encouraged to play native games. At the annual conferences of teachers held in each district, and in some districts in each tahsil, athletic contests are regularly held, and when the boys are assembled at the centres where the upper primary examination is held, one day is devoted to sports and gymnastics, prizes being offered for competition by the School Committees and others interested in the schools. In some districts challenge shields are provided for the most successful schools. Drill is taught in every school, and to give the boys a greater interest in this part of the school routine, the system of "boy captains" has been introduced, the best boy in each class being set to drill his own class, and prizes being offered for the best drilled classes at the annual inspection. This system "makes for discipline, and encourages emulation between class and class, so that drill and gymnastics cease to be, as they often were, a dull iteration of monotonous movements, but are entered into by the boys *con amore*." The annual inspection of every school ends with an exhibition of drill and gymnastics, for which prizes are given.

In Burma drill and gymnastics were included in the schedule of standards published in 1890-91, and in the following year were introduced into Government and municipal schools; they are also taught in many aided schools, the grants offered being rather larger than those given for most of the other optional subjects.

In Assam the question of physical training was said to be under consideration in 1889-90, but the later reports do not show that any action was taken.

In Berar most of the schools under public management are provided with gymnasia, and itinerant instructors have been appointed, whose duty it is to train the pupils in the schools of one or two taluks, staying in each place as long as possible up to a limit of ten days at a time. In some cases they remain only one or two days, and some of the District Officers say that for the rest of the year the boys receive no instruction, but in other cases the teachers or senior boys continue the work of the instructors. A definite programme of work has been laid down for each standard, and prizes are given annually in each school. Some of the indigenous schools have followed the example set by the Government schools.

257. Punishment for breaches of school discipline.—The two points on which the opinions of Local Governments were specially invited were the suitability of corporal punishment for boys who have not reached an age when

such punishment becomes inappropriate, and the unsuitableness of fines as falling upon the unoffending parent rather than the offending pupil. The replies received showed that corporal punishment was generally recognised as suitable in cases of aggravated misconduct, while fines were also considered appropriate for some offences, especially irregularity of attendance, for which parents are responsible. In the Codes of three provinces—Madras, the Punjab, and Burma—rules are laid down regarding the nature of punishments in schools under public management, and in all of them corporal punishment is recognised, but head masters alone are authorised to inflict it. In Madras the punishment is limited to six cuts on the hand, and the head master is required to record the nature of the offence and the punishment inflicted; the last rule is enforced also in the Punjab. Fines are not mentioned in any of these Codes. In the Central Provinces corporal punishment may be inflicted by the head master upon any scholar of a primary or middle school for certain specified offences, and also in high schools on boys under 15 years of age In colleges the same offences are to be punished by fining the students; and this is also allowed in secondary schools, but not in rural primary schools. All punishments must be recorded in a book kept for the purpose, and also in the scholar's conduct register. In Assam a circular to all head masters of schools gives instructions in accordance with the recommendation of the Government of India, but allows the infliction of fines for offences for which parents are responsible, such as irregularity, untidiness, etc.

One fruitful cause of lax discipline in schools and colleges is the unwholesome rivalry of institutions. On this subject the Madras Director says: "This rivalry is due to many causes, but the chief is the desire of Managers to increase their fee receipts in order to make good the loss which they have suffered by withdrawal of State aid, or to secure the funds necessary to raise the standard of their institutions, or to bring the rising generation under mission influences, or to keep them from passing under those influences, or, the worst feature of all, merely to gain a livelihood and to avoid State supervision. These conditions have affected the moral tone of many schools most injuriously. Managers have touted for pupils; discipline has been lax; the pupil has grown insolent, feeling that he is the master of the situation; the ignorant parent has sacrificed his child's welfare from a false economy or a foolish dislike of strict discipline; classes have become unduly large; class promotions have been carried out, not with regard to the welfare of the pupil or of the school, but to retain the student's name on the books and to secure the favour of his friends; schools have been established without suitable accommodation, sanitary necessities, apparatus, playgrounds, and, last but not least, without a staff capable of giving instruction according to the standards desired to be taught." In another place he states that the rivalry is chiefly among high schools, and the Bengal Director expresses a similar opinion: "It was only in aided and unaided high English schools in and about large towns where boys might be tempted to acts of insubordination by bad example and emulation in wrong-doing, that lax discipline prevailed; and it is especially in reference to schools of this class that measures have from time to time been taken to remedy the evil. Schools, again, are often started as a mere money speculation; and in such cases, as the object is to attract pupils anyhow, discipline goes to the wall." In the report for 1889-90 the Director quotes the following extracts from a letter describing the tactics pursued by rival schools: "Canvassers may be seen all over the district busily engaged in recruiting students for the schools whose cause they advocate . . . . . It has made the students unruly, disobedient, and disrespectful in the extreme. Discipline cannot be enforced among them . . . . . The good students have learned to sell themselves to the highest bidder, and those of the Entrance

class fetch a good price in the market. Every year in the month of August the agents of the mofussil Entrance schools come to secure 'good sure students, (*i.e.*, those who will surely pass in the Entrance examination) from the town schools by a promise of free board and lodging, free studentship, boat-hire, and something in cash to meet Puja expenses. It would have been better for this place had these schools not existed at all." In Bengal some of the colleges under private management are at least as bad as the high schools. In the report for 1889-90 the Director refers to the opening of two practically free colleges at Barisal, "which have been established in a spirit of mutual rivalry, in a town where there is certainly not room for more than one institution of the class," and which "are maintained, not so much by any genuine local demand as by the offer of free tuition to all-comers. Such an offer, in the present state of collegiate education, cannot be otherwise than demoralising to the students; and it becomes a serious question whether institutions conducted on such principles should be allowed the privilege of competing for Government scholarships." A still more serious case was brought to the notice of the Government of India in 1890, when the Syndicate of the Calcutta University recommended that the Law Department of the Ripon College should be disaffiliated for a year, and severely censured the management of the Albert College, on account of irregularities in the registration of the attendance of students. When the teachers and managers are found to connive at violations of University rules, a high standard of morality cannot be expected among the students, and frequent, and sometimes successful, attempts have been made by them to obtain possession of University examination papers, or to gain admission to the examinations by fraudulent means. In most of the Universities it has been necessary to cancel one or more examinations in consequence of premature disclosure of the questions, and one boy is now undergoing a term of imprisonment for the theft of papers set at the Calcutta Entrance Examination of 1892. In some cases the payment-by-results system exerts a very pernicious influence on the moral character of the rising generation. In Bengal the examinations of primary schools are conducted at a large number of centres at different times, and many cases are recorded of attempts made by gurus to obtain more than their legitimate rewards by presenting the same boys at two different centres, thus making the boys their accomplices in their attempt to defraud the State.

258. **Conduct registers.**—The Government of Madras objected to the introduction of conduct registers on the ground that the moral defects of scholars are not such as can be marked by registers of conduct, and deprecated the suggestion that attention should be given to such registers in selecting candidates for the public service, on the ground that it would be cruel and unjust to place on permanent record the faults committed in early youth. The Government of India admitted the force of this objection, but considered that it could be met by the omission of the earlier entries where these would give an unfair impression of a scholar's real character, or by the addition of notes to prevent their having this effect, and that the advantages of the system outweighed its disadvantages. The Government of Bombay stated that the system would be tried under a few selected head masters, but the reports do not show whether this has been carried out. In Bengal orders were given in 1889-90 for the introduction of conduct registers in all secondary schools receiving any support from public funds, teachers being required to send quarterly reports of conduct and progress to the parents or guardians of the scholars. In the North-Western Provinces very elaborate registers were introduced into all schools in 1889; they show the date of admission and withdrawal of a scholar, his age, his progress through the school, his regularity or irregularity of attendance in each class, his position in the final examination of the

class or in any public examination he may pass, brief details of every instance of serious misconduct and the punishment awarded, and any special distinction, with the prize, if any, received. A copy of all these entries is given to the scholar when he leaves the school, and must be taken by him to any other school he may wish to enter, but no provision seems to be made for sending reports to parents or guardians. In the Punjab a good conduct register is kept only for the secondary departments of high schools; it is written up monthly by the head master, and includes a notice of (1) attendance, (2) preparation of lessons, (3) general demeanour, (4) cleanliness. Where prizes are given for general proficiency, no scholar can obtain a prize if the entries in this register are unsatisfactory. In the Central Provinces conduct cards, afterwards exchanged for conduct books, were introduced into all schools under public management in 1889-90, and their use in aided schools was recommended. The Chief Commissioner of Burma stated that conduct registers would be used in schools under public management, and recommended for use in aided schools; but this does not appear to have been carried out, for no mention is made of such registers in the reports or in the code. In Assam progress reports, including reports of conduct, were in use in some parts of the province before the recommendation of the Government of India was published, and their use has now been extended to all Government and aided high schools and to Government normal schools. In Berar registers have been introduced only in high schools.

259. Boarding-houses for Students.—While most of the Local Governments concur in the view that the establishment of well-conducted boarding-houses is one of the best means of improving the moral tone and discipline of schools, the financial difficulty has proved a serious obstacle to the extension of the system. The Madras Government would be glad to see the experiment tried by private agency, but regarded its success as too doubtful to justify the expenditure of public funds. The Grant-in-aid Code does not mention any grants to boarding establishments, except those connected with European schools, and apparently the only other institutions of this kind are some boarding schools for Native Christians and others maintained by missionary societies. Schools of this class are found in all the provinces of India. In Bombay, quarters for students are attached to two of the Government colleges, and it is proposed to place them under the supervision of a resident Principal or Professor. There are no hostels attached to Government high schools, and no funds available for their establishment. In Bengal nearly all of the Government colleges and zila schools have hostels under the supervision of one or more of the teachers, who in some cases receive a capitation allowance for each boarder: some of the high schools under private management and many schools for Native Christians have boarding-houses, and under the rules grants may be given on account of these establishments. In 1891 the Director obtained returns of expenditure from 26 hostels in mofussil stations, containing 822 boarders: from these returns it appears that the average expenditure was R4 a month for each boarder, of which the boarders paid R2-11-6, Government As. 13, and the remainder, As. 7-6, was paid from subscriptions, etc. In ten of the hostels the monthly cost was from R3 to R3-8, while in the most expensive it was R8-8-6, the number of boarders being only five. The amount contributed by the students was exactly equal to the average expenditure on food; servants cost As. 11-6, rent and taxes As. 5, and sundries As. 4. In some of the hostels there was no charge for rent and taxes, but in some it exceeded a rupee a month. In Calcutta the expenditure is much higher, but no details are given: the Hindu hostel is open to students of all colleges. A proposal has recently been made to establish some sort of supervision and control over lodging-houses and students,

messes, but it is doubtful whether such a scheme could be carried out except by the University, and that body has no power to act in the matter under the present Act of Incorporation.

In the North-Western Provinces boarding-houses are attached to nearly all the zila schools, and about 12 per cent. of the scholars in these schools reside in them. "These boarding-houses continue to be among the most important and successful features of our schools. Not merely are boys attracted by them from the different parts of a district, but the standard of instruction and the tone of the schools are raised by the example and force of the inmates of boarding-houses. The more studious habit of the boarders and the supervision under which they remain, together with the facilities they enjoy in the playground after school-hours, place the boarders first in the list as regards class instruction, discipline, and physical education." Very precise rules have been laid down for the management of these institutions, and one of the conditions of residence in them is that boys shall join in physical exercises and games, unless declared to be physically unfit to do so. Each boarding-house is under the charge of a resident superintendent, who is under the orders of the head master, while the sanitary arrangements are supervised by the Civil Surgeon. Boarding-houses have also been provided in many of the town schools, and in 1892 there were 1,513 boarders resident in them, of whom 596 were holders of district scholarships gained at the upper primary examination. In the Punjab boarding-houses have been opened in connection with all the Arts colleges, and in the two colleges under public management residence in the boarding-house is compulsory for all out-station students who are not living with relatives or personal friends of their parents or guardians. It is a standing regulation that, as far as possible, a boarding-house should be attached to every secondary school: almost all of the Anglo-vernacular schools have already been provided with them, and steps are being taken in nearly every district to satisfy the requirement with regard to vernacular schools. The Education Code authorises local bodies to make residence in a boarding-house compulsory on out-station students, and contains general rules for the management of such institutions. Special rules are drawn up for each boarding house, and submitted to the Inspector for approval. The cost of boarding-houses falls almost exclusively on Municipalities, and one Inspector remarks: "Municipal Committees, as a rule, grudge the expenditure on boarding-houses from their own funds. They assert, and with reason I think, that this portion of the expenditure on their schools should be defrayed from district funds, the institutions being intended chiefly for the convenience of students who come from villages." The reports of the Central Provinces do not give much information regarding boarding-houses: in the reply to the letter of the Government of India six of these institutions are mentioned, and the Inspector General was directed to press upon the attention of local bodies the necessity of improving and enlarging them. The one connected with the Jubbulpore College has since been enlarged and improved, and a hostel has been opened in connection with one of the middle schools. In Burma the recommendation of the Government of India was communicated to Municipal Committees, but little or no action was taken by them, for in the last report the Director says: "I should like to see the question of boarding establishments in connection with municipal schools taken up: these are very necessary and can, under competent superintendence, be easily made self-supporting: those in connection with the Rangoon College, the high schools at Moulmein, Bassein and Akyab are admirably managed, and exercise a very wholesome influence over the students." The Code provides for a capitation allowance for each boarder in an aided English school or college. In Assam 7 out of 11 Government high schools are provided with hostels: accommodation

is provided for 164 boarders, but only 120 were in residence in March 1892, and in only one case was the whole of the accommodation taken up. In one of the remaining schools certain selected masters are allowed to take boarders, receiving a capitation allowance from Government. One of the four aided high schools provides accommodation for 30 boarders, but only 12 were in residence. In 1891-92 the expenditure from provincial revenues amounted to R1,494, exclusive of the cost of construction and repairs. The central school at Merkara is provided with a boarding establishment, which in 1892 contained 90 inmates, all of them Coorgs. The two high schools of Berar are both provided with boarding-houses, in which about one-fourth of the scholars reside.

In the event of a revision of the general tables prescribed by the Government of India, it might be worth while to consider whether columns should be added to Tables III and IV to show the attendance and expenditure in boarding establishments. Besides giving additional and useful information, this would necessitate a separation of tuitional expenditure from that incurred in boarding and lodging scholars. In some provinces the instructions given for filling up the annual returns state that expenditure on boarding establishments should be excluded; but an examination of the detailed tables showing the fees and total cost in individual schools shows that the instructions are not always complied with, especially in European schools.

260. **The Monitorial System.**—The replies to the enquiry whether any advantage would be derived from the introduction of the English monitorial or prefect system display the utmost divergence of opinion; but almost all the adverse criticisms appear to arise either from an imperfect acquaintance with the fundamental principles of the system or from want of confidence in Indian head masters. The Elphinstone High School rules, referred to in the Resolution of the Government of India as suitable for introduction into Indian schools, do not appear to be generally understood; they are therefore given in full with Mr. Jacob's explanation and his opinion regarding their extension to other schools:—

"Before I directly answer this question, it is necessary to state clearly what I understand the monitorial or prefect system to be; and I beg to quote, by way of illustration, the following rules which I framed when I introduced monitorial government into the Elphinstone High School 13 years ago:—

'The Principal has, on several occasions, dwelt upon the necessity of the senior students co-operating with him and the masters in preserving discipline and a high moral tone throughout the classes, if the school is really to prosper and exert any lasting benefit on the students at large. The time seems to have arrived for giving more practical effect to what has been said.

'Accordingly the students of the two first classes of the first form will henceforth be responsible to the Principal for the maintenance of good conduct and gentlemanly behaviour out of lesson-hours in the second, third, and fourth forms of the school.

'In this capacity the senior students above mentioned will be called prefects, and they will exercise their powers under the following conditions:—

1. The prefects of Mr. Talati's class will be generally responsible for the Gujarati side and the prefects of Mr. Keskar's class for the Marathi side.

2. But besides this, two prefects on each side will be appointed daily and by rotation to act as 'prefects of the day,' and it will be their duty to personally visit the class-rooms and passages out of lesson-hours and, whenever necessary, to issue instructions to the class monitors.

3. All prefects, on their respective sides are empowered to punish (when necessary) any boy of a junior form clearly guilty of a breach of rules, either by setting the offender an imposition (which is in no case to exceed 100 lines), or by reporting him to his master for degradation in class, or, if necessary, by both.

4. In all cases of doubt or of resistance to the prefect's authority, the prefect will consult his colleagues, and the difficulty will be decided by a majority of two-thirds.

5. Extreme offences, either against morals or discipline, must be reported to the Principal on the day of their occurrence.

'The prefects will be responsible for the just and impartial exercise of the very important powers entrusted to them. The Principal also looks to the other senior students of the first form to lend the prefects the support of their example; and trusts likewise that the whole of the junior forms will prove, by their ready obedience to the prefects, that a limited system of self-government can be no less successful in the Elphinstone High School than it has long been in the great public schools of England.'

"The core of the system, as it is found in English public schools, is of course the punitive control entrusted to the prefects or præpostors; and this, it will be seen, was the essential feature of the Elphinstone rules. Another important feature of the Elphinstone system was that the prefects were the pick of the highest form, and though they were naturally in close and sympathetic relation with the Principal, they were from the first taught to depend upon their own powers of enforcing discipline in all ordinary cases without appealing to higher authority. It is the delegation of this disciplinary power to the prefects that emphatically marks the trust reposed in them, and 'brings them to look upon the reputation and prosperity of the school as partly committed to their keeping.' If you withhold this power and require the prefects not to *preserve* discipline but merely to report breaches of it to the masters, you reduce the prefects to the position of mere tale-bearers. Self-government becomes government by espionage and with a decided tendency to develop nothing but ignoble traits of character in those who are allowed to play no higher part in it than that of menials. I deprecate most strongly a mutilated system of this kind. If the leading boys are to be associated in the internal government of the school, it must be as the trusted bearers of an honourable power and responsibility, which their juniors can respect and will themselves one day be proud to attain. Any system that falls short of this, I should say, is injurious to the whole tone of the school; and it will be far better for a head master not to attempt to introduce monitorial government if he shrinks from entrusting his prefects with the functions on which the success of the system wholly depends.

"The prefect system may be said to be a plant indigenous to England. It is unknown to the school of Germany or France; and it is very imperfectly understood by the head masters of our Indian schools. It may also be truly said to have contributed more than anything else to the growth of that corporate spirit which Dr. Vaughan some years ago termed the glory of the English public schools. My answer therefore to the question of government is two-fold. Firstly, a healthy use of monitorial authority cannot be secured in an Indian high school unless it is administered by a head master who is familiar with the working of the English system and who can thoroughly enter into the spirit of the famous words which Dr. Arnold addressed to his sixth form :—

'You should feel like officers in the army or navy, whose want of moral courage would, indeed, be thought cowardice . . . . When I have confidence in the sixth there is no post in England which I would exchange for this; but if they do not support me I must go.'

"And, secondly, I am of opinion that there is nothing which is more calculated to raise the tone of our high schools than this prefect system when rightly administered. The leading boys of one or two of the most advanced schools are quite fit, under proper guidance, to be entrusted with the powers of a limited system of self-government; and when the system has taken root, it will recommend itself and spread, just as cricket has done."

Regarding the danger of introducing the monitorial system under a head master who is not acquainted with the mode in which it is worked in England Mr. Jacob adds in a foot-note: "The Principal of the Elphinstone High School, for example, has lately publicly stated that he has improved on the English monitorial system by transferring the punitive powers of his prefects to two of the assistant masters, under whose surveillance the prefects are merely to report offences against school rules." Another Bombay Inspector quotes an extract from a report by one of the most experienced head masters of his circle, showing a similar misapprehension of the spirit of the system, and several other instances might be quoted from the opinions recorded in other provinces. In a few cases the character of the scholars was considered an obstacle to the successful introduction of the system; thus the Assam Director was afraid that it might lead to the levy of black-mail if introduced into day-schools, though it might prove useful in boarding-houses.

Regarding the results of the introduction of the system there is very little information. In the Central Provinces it is said to have been tried with success in boarding-houses, while in Berar the experiment made in the high schools was speedilly abandoned, the system being declared unsuitable to the province. The Punjab Code required that a monitor should be appointed in every class of board schools to keep order, and also in boarding-houses, but the powers of the monitors are not defined. In Bengal the experiment was tried in the Eden Hindu Hostel in 1889-90, punitive powers being given to the monitors, but the later reports say nothing about it. In the North-Western Provinces the appointment of monitors in hostels is sanctioned, but the reports do not say whether they have been appointed. In the reports of other provinces no allusion is made to the system.

261. Age Limit for different Classes.—No definite orders were passed in the Resolution on the proposal to exclude from schools all boys who failed to reach a certain class by a certain age. It was represented that any hard-and-fast rule would lead to the exclusion of many boys belonging to the backward classses of society, especially Muhammadans, who usually do not commence their secular education till they have spent some years in learning the Koran. The rule is considered unnecessary in day-schools, since the older boys are generally on the side of order, and their younger companions rarely show any dislike or contempt for them on account of their backwardness. The settlement of the question was therefore left to the Local Governments, and where any limits of age have been fixed they are so high as to exclude very few scholars. In Bengal no boy over 14 can be admitted to any class of a Government high school below the fourth without special sanction, but Muhammadans have been exempted from the operation of this rule. In Assam the limit of age for the fourth class is 16 for Hindus and 18 for Muhammadans and other backward races, but discretion is given to head masters to relax the rule if necessary. In the Punjab the limits of age for the lowest and highest classes of primary schools are 16 and 20. In Burma no grants are given for pupils above a certain age in each standard, but they are not excluded from the schools. In all the schools under public management in the North-Western Provinces and in the high schools of Assam a boy who fails to obtain promotion for two or three years must be withdrawn from the school.

262. Inter-school rules.—During the last five years the rules regulating the transfer of scholars from one school or college to another have been revised in most provinces, so as to bring them into accordance with the views expressed in the Resolution of the Government of India. The three essential points to be secured in these rules were declared to be (1) that a boy dismissed from one

school should not be admitted to another school, (2) that failure to pay schooling fees in one school should debar a boy from admission into another school, and (3) that a boy should not be able, by changing his school, to obtain promotion which he would not otherwise have obtained, except in each case with the previous consent of the educational authorities. In Madras all these points are secured in the inter-school rules which form part of the conditions of recognition of schools and colleges, and these rules have been adopted by the University, so that no institution that does not conform to the rules can send up candidates to any public examination. In Bombay a leaving certificate is compulsory, and this gives details regarding conduct, payment of fees, and standard of instruction; but there are no definite rules about refusal of admission if the information given is unsatisfactory. In Bengal an addition has been made to the transfer rules to prevent the admission of boys expelled for misconduct, except with the sanction of the Director. The rules apply only to colleges and high schools, and have not been formally accepted by the University, though recent orders of the Senate and Syndicate have practically made them compulsory in unaided institutions; for schools of lower grade corresponding, but simpler, rules have been drawn up by the Circle Inspectors. In the North-Western Provinces inter-college rules, embodying all the above-mentioned points, have been drawn up by the Department, and accepted by the University: similar rules have been made for Anglo-vernacular schools, Government and aided, but the case of boys expelled from school is not very clearly provided for. In the Punjab there are similar rules for all schools, but they operate for six months only: after that period a boy can be admitted to any school without a leaving certificate, so that expulsion is practically equivalent to six months' rustication and a change of school. In the Central Provinces rules were issued in the beginning of 1890 similar to those in force in Bengal, but they do not apply to primary schools. In Burma the rules correspond to those of Bombay, except that promotion on transfer is prohibited. The Bengal rules have been adopted in Assam for high, middle and upper primary schools, but the restriction of promotion applies only to the first two or three classes of the schools. In Berar nothing is definitely stated about boys who have been expelled, but in other respects the rules are in accordance with the Resolution.

Regarding the result of the introduction of the rules the Bengal Director says: "The effect has, on the whole, been highly salutary; for although most of the officers complain of the heavy amount of additional work thrown on their shoulders in the administration of these rules, they all support the view that the boy is no longer master of the situation, and cannot now leave one school for another without paying his fees or without his guardian's knowledge, or when chastised for misconduct, or not promoted to a higher class. Indeed, the tables are altogether turned, and it is not now very difficult for an unscrupulous head master to harass a boy and put him to all sorts of delay, difficulty, and inconvenience when he wants to leave the school. It requires not a little vigilance, therefore, on the part of the inspecting officers to see that the rules are not turned into an engine of oppression. The complaints which I myself have to decide, and which are not completely covered by the rules, may be counted by the score; and the majority are brought by pupils against the authorities of their late schools, generally for refusing to grant them a transfer certificate. Not infrequently exorbitant demands have been made by schoolmasters; and they are only brought to their senses by the prospect of being deprived of the right of competing for scholarships—a penalty which has been inflicted in several cases. On this subject Mr. Bellett remarks that 'the transfer rules, both those issued by the Director of Public Instruction and those which under his direction I have issued for middle schools, are working admirably; and I have little doubt that

the very severe penalty attached to the violation of the rules, and the terribly bad odour which the infliction of the penalty would bring upon the offending head master, will secure for the future that the rules are obeyed.'"

263. **Moral Text Book.**—In the Resolution of the 23rd October 1884 the Governor General in Council dissented from the proposals of the Education Commission "that an attempt be made to prepare a moral text-book, based upon the fundamental principles of natural religion, such as may be taught in all Government and non-Government colleges," and "that the Principal or one of the Professors in each Government and aided college deliver to each of the college classes in every session a series of lectures on the duties of a man and a citizen." The Secretary of State (Lord Kimberley) concurred in the views of the Government of India, but added "it may possibly be that hereafter some book in the nature of a text-book of moral rules may be written of such merit as to render its use desirable." His successor in office, Lord Cross, took a somewhat different view of the matter, and in a despatch dated the 29th September 1887 requested the Government of India to take steps for the preparation of a book suitable for use in schools in India. Before passing final orders on the subject, the Government of India requested the Local Governments and Administrations to state their views as to the best way of giving effect to the wishes of the Secretary of State, whether by the adoption of new text-books, or the revision of the existing books in order to introduce into them extracts from the various great writers who have dealt with the question of personal conduct in its various aspects. The replies received show that the majority of the educational authorities in India are of opinion that a text-book containing moral precepts or rules of personal conduct would be either useless or injurious, at least in schools, though there is an equally strong consensus of opinion that good may be done by the indirect teaching of morality by means of illustrative stories in the readers used in schools. A few, however, think that even this is unnecessary, and that a good teacher will find means of giving moral instruction to his pupils without requiring any specially designed text-book or reader, while such helps will be of no use in the hands of a bad teacher. The arguments against the introduction of a special text book are so various that it is impossible to attempt a detailed analysis of them, but two or three extracts may be given. "The only lessons in morality which are likely to have a practical effect on a boy's conduct in after-life are," in the judgment of the Lieutenant-Governor of the North-Western Provinces, "those which are taught him at home during his childhood, and which are received by him from observation of his daily surroundings and the tone of the society in which he grows up. His Honour sees no sufficient ground for believing that their salutary influence will be strengthened by instruction in the principles of natural religion or natural morality as laid bare in the fleshless skeletons of moral text-books, proficiency in which may enable boys to trace the articulations, but never to construct for themselves a living semblance of a higher moral existence. The difficulties of composing suitable moral text-books for the use of children of Eastern origin would be far greater than in the case of the children of English race, whose minds, dispositions, and sympathies are cast in a kindred mould to that of their teachers, and whose daily life is passed among scenes and in societies where the value attached to the observance of morality, in its several forms, is brought home to them more impressively than in India. It is probable that the greater part of the Muhammadan community would still agree with the *dictum* attributed to the Caliph Omar, and would hold that moral text-books are 'either in conformity with the word of God or they are not. If they are,

that word is sufficient without them; if they are not, they ought to be des-'royed.'" Sir Alfred Croft says: "Moral science is now taught in our Universities as a branch of psychology or mental science in general, and being taught and studied as a merely intellectual exercise, it does no harm. But bring down such discussions, in however elementary a form, to the school-room (and I hold that if any didactic compendium of moral precepts be enjoined, such discussions cannot be altogether avoided), and the moral atmosphere which the boys breathe is vitally changed. There is no longer that healthy, instinctive, spontaneous doing of the right which marks the frank and honest schoolboy: spontaneity is replaced by a baneful self-consciousness, and, to use a homely phrase, the boy becomes a prig or worse. At least, I believe, there is danger of this. It is not to direct moral instruction, but much more to the influence of teachers and the discipline of school-life, that I am inclined to look for aid in strengthening and developing the better impulses of school-boys." The Lord Bishop of Bombay says: "About the usefulness of lessons and lesson-books on personal conduct I am very sceptical. Their value, if they have any, will depend entirely on the tone of the teacher. In the hands of a man of the right stamp they may be of some use as formulating for the memory what is enforced by discipline and example. But as a rule I should say that they would be useless in the hands of a bad master and superfluous in those of a good one." In some cases the objection to lessons on morals is based upon the difficulty of expressing such lessons in language sufficiently simple to be understood by boys in Indian schools. Even in books specially compiled for use in Indian schools teachers find these lessons too difficult for the scholars. Thus the Assam Director says: "In high and middle English schools the Moral class books, Chambers' Educational Course and Lethbridge's Moral Reader are in general use; both these books contain good and useful lessons on moral subjects, especially the latter, where the lessons are supplemented by stories culled from eminent writers illustrating the moral lessons. During my winter inspection I made it a point at each inspection to call attention to this subject, but, strange to say, I almost invariably found that the moral lessons had been omitted and the stories read . . . . . On enquiring why the moral lessons had been left out, the invariable answer was that the language was more difficult than in the stories, and passages were harder to explain." A Madras writer goes further, and states that some of the extracts from eminent writers given in the middle school course are too difficult even for the teachers to understand.

The views of the majority were accepted by the Government of India, and the final orders on the subject are contained in the following extract from the Resolution: "Having given this important question its fullest consideration, the Government of India is satisfied that the end in view would not be attained by prescribing for use in colleges and schools a treatise on ethics or a book of didactic instruction in the rules and principles of conduct. It believes that the careful selection and training of teachers provide the most effectual method of establishing a good moral tone in a school; but it also considers that the influence of the teacher may be greatly strengthened, and the interests of morality promoted, by the use in schools of text-books having a direct bearing on conduct either by means of precept or example." After referring to the adoption of a book of this kind as a text book for the Entrance examination of the Calcutta University, the Resolution goes on to say: "All that remains now to be done, in Bengal at all events, is to supplement this action of the University by providing for the lower grades of schools, and for each class in those grades, suitable text-books compiled on similar lines. Similar action in other provinces is equally called for, and accordingly the Governor General in Council desires that each

Local Government and Administration should take this matter at once in hand, and either by the appointment of a Committee, or by employing selected individuals, who need not necessarily be officials, or by the offer of suitable prizes, effect a revision of the existing readers in the direction indicated above, or, where necessary, procure for use in schools an entirely new set of books compiled on these principles. His Excellency in Council will be glad to learn from time to time the progress made in each province in this undertaking."

Regarding the action taken by the various Local Governments complete information is not available. In Bengal text-books are not prescribed by the Department for any class of schools: managers are free to select their own text-books out of a list of books examined and approved by the Central Text-book Committee. In 1890-91 this Committee, at the request of the Director, re-examined all the approved readers in English and Bengali to see which of them came under the category of moral text-books; 21 English and 54 Bengali readers were selected, including books suitable for all classes of primary and middle schools, and in the official list of approved books the attention of managers is specially drawn to these books. The English readers used in all the Government and aided Anglo-vernacular schools of the North-Western Provinces have been revised with the special object of giving the moral instruction required, and one of the books of this series has been prescribed by the University for the Entrance examination: no information is given regarding the character of the vernacular readers. The same English series has been introduced into the high schools of Assam, and will eventually replace those used in middle schools; for vernacular schools books will be chosen from the list approved by the Calcutta Text-book Committee. In the Punjab a special moral text-book was introduced into the course of Anglo-vernacular high schools in 1890-91; and in all schools "the class readers are framed so as to inculcate simple moral lessons, leading to approval of what is manly and virtuous and to a detestation of whatever is vicious." The subject is not lost sight of in the training institutions, and in the last report the Director says: "It is now well understood that the characters of the scholars, as well as their intelligences, have to be drawn out and influenced by the teachers. This is now known, in a way, in every village school; and although the old masters may not understand how this new object is to be attained, yet the mere knowledge that it has to be looked to is of some avail. The more intelligent head masters however have grasped the idea, and their interests and instruction are different from what they used to be. Punctuality, diligence, obedience, unselfishness, kindness, friendship and the like, are now considered as traits of character, not merely belonging to persons read about, but to be exemplified in the daily life of the scholars themselves. Every year the training institutions send abroad new teachers with higher ideals in this respect, and new modes of exhibiting and inculcating them; and these act like leaven in a lump, with the result that the influence of moral teaching is more widespread than might at first sight appear. The extension and improvement of the boarding-house system have also a salutary effect, especially in awakening a feeling of comradeship and common interest; and the freer association and rubbing and contact of the scholars on the playground in mutual dependence, in fairness to each other, in bearing defeat, and in honourable dealing always, are moral school-masters of potent influence. We cannot eliminate the agencies to the contrary beyond the school and the playground; but there is a spirit at work in the schools which will, within a generation or so, change the whole tone of the class affected." These views may appear somewhat optimistic, but it must be remembered that relatively to the number of public schools the Punjab is better provided with

training institutions than any of the other large provinces of India, and also that nearly 90 per cent. of these schools are under public management, and therefore more directly under the influence of the Department. The case is very different in Bengal, where the vast majority of the schools are indigenous institutions, very slightly affected, and not always improved, by departmental influence, and where the income of the teachers in primary schools is usually much less than that of a menial servant. In Burma a new set of Burmese readers is being prepared in which the instructions of the Government of India have been steadily kept in view: "the aim has been not only to make the books highly interesting and instructive, but also to inculcate on the pupils the principles of morality and good conduct, while the rule of strict religious neutrality has been observed throughout." The Berar Director says: "Steeped in ignorance as the poorest classes are, it is not to be expected that they should have any clear perception of moral worth or any developed sense of right and wrong, or that the minds which the training college teachers have to mould should be of a readily impressionable nature. But none the less on that account has the duty of giving the pupils such a moral training as they are capable of receiving been overlooked; and accordingly the prescribed course of training will be found a very sufficient adaptation of the means to the end. And in all classes of schools, careful attention has, from the first, been directed to the moral as well as to the intellectual, education of the pupils. For years the printed forms for inspection reports have required the inspecting officers to describe the condition of the primary schools as regards the appearance, the manners, and the punctuality of the pupils; and the text-books in use in these schools, and in the middle schools, have been either specially prepared or selected with the view of conveying moral lessons 'suited to the understanding of students at different stages of moral growth;' and as these lessons occur at intervals after lessons on other subjects they have the freshness of novelty, and are likely, therefore, to be more impressive than a daily lesson, in regular course, from a moral text-book would be. In the high schools the course of reading extends to literature of the highest class, which cannot fail to influence for good the minds of the pupils."

264. Discipline in Colleges.—The three suggestions on this subject were generally accepted by Local Governments, though in some cases meetings of College Councils were declared to be unnecessary, and in others it was considered advisable to maintain the autocracy of the Principal in matters of discipline. Cases of gross insubordination and serious breaches of college discipline are very rare in India, though serious moral offences are not uncommon: these are generally of the same type as those connected with University examinations alluded to in the following extract from a letter written by Archbishop Porter of Bombay: "The species of gambling at the examinations is a great evil and should be put down by severe penalties. Hundreds present themselves who know they are not prepared: hope for a lucky chance, perhaps copy from neighbours, and have recourse to endless tricks." Similar tricks are played in the lecture-room; one of the commonest of these is for a student to absent himself from a lecture, and to try and evade the penalty for irregular attendance by getting a companion to answer when his name is called. The offences committed at examinations are much more serious, and at the same time more difficult of detection. In the years 1891 and 1892 one case of personation and four cases of attempting to obtain admission to examinations or certificates of passing by means of forged certificates were detected in the Calcutta University, besides the theft of papers already alluded to. In one case the offender was prosecuted; but the High Court held that the production of a false certificate did not come under the legal definition of forgery or any other offence recognised in the Criminal Code.

Convictions have, however, been obtained in similar cases in Madras and the North-Western Provinces. It is probable that many cases pass undetected, for the true nature of the certificates was in every case discovered in consequence of some informality necessitating a reference to the person who was supposed to have signed the certificate.

CHAPTER XV.

EDUCATIONAL CONFERENCES.

265. Recommendations of the Education Commission.—The recommendations under this head were:—"That Conferences (1) of officers of the Education Department, and (2) of such officers with managers of aided and unaided schools, be held from time to time for the discussion of questions affecting education, the Director of Public Instruction being in each case ex-officio President of the Conference. Also that Deputy Inspectors occasionally hold local meetings of the schoolmasters subordinate to them for the discussion of questions of school management" (VII, 2); "That with the object of rendering assistance to schools in the form best suited to the circumstances of each province and thus to call forth the largest amount of local co-operation, the grant-in-aid rules be revised by the Local Governments in concert with the managers of schools," (VIII. 8); and "That with a view to secure the co-operation of Government and non-Government institutions, the managers of the latter be consulted on matters of general educational interest (VIII, 14). The Government of India accepted the first of these recommendations, but stated that no objection could be raised if any Local Government desired to try the alternative plan of establishing a permanent consultative board, a plan which had been rejected by the Commission "on the ground that any advantages that such a board might secure would be purchased at the price of efficient administration." In the last Review Sir Alfred Croft stated that these recommendations of the Commission had been acted upon in every province, and that everywhere important educational questions had been referred to the judgment of persons outside the Department. The following paragraphs will show to what extent this policy has been adhered to in later years in the different provinces. The changes that have been made in the grant-in-aid rules at the suggestion of managers of aided schools, or in consequence of the resolutions adopted at Conferences, will be stated, but it is unnecessary to describe other changes in the rules, since they have already been described in previous chapters.

266. Educational Conferences: Madras.—In 1886 the Government of Madras decided that Conferences should not be held at stated intervals, but as subjects for discussion arose. During the last five years several important questions have been referred to Conferences, which usually consist of 12 members, 6 of them being representatives of institutions under private management, and 6 Government officials. The first of these Conferences was held in 1887-88, the main subjects of discussion being the establishment of an alternative final examination for high schools, the tests for admission to the public service, and the conditions of recognition of schools. After the report of the Conference had been submitted, a set of rules was drawn up, and circulated for the opinion of all persons and associations interested in education. The rules were criticised by the Senate of the University, the Executive Council on Aided Education, the Graduates' Association, and many other societies and individuals, and all of these criticisms were taken into consideration before the rules were finally published in June 1889. In 1889 and 1890 the Standing Orders of the Education Department formed the subject of discussion at another Conference, and early in 1891 these orders were published under the title of the "Madras Educational Rules." They include the classification of schools, the conditions of recognition, inter-school rules and other rules regarding discipline, the courses of instruction and standards of examination for all classes of institutions, and rules relating to training schools and the award of teachers' certificates. An

In Berar a Conference is held annually at Akola or Amraoti, and circle gatherings of teachers of both town and village schools are held at certain centres two or three times a year.

A Teachers' Association is combined with the central Conference; lectures are delivered on various subjects, and classes of boys are taught in the presence of the assembled teachers, the lessons given being afterwards criticised. The circle gatherings are of the same character, and are intended for the mutual improvement of the teachers.

CHAPTER XVI.

PREPARATION AND DISTRIBUTION OF TEXT-BOOKS.

270. Recommendations of the Education Commission.—A year before the Education Commission was appointed, the subject of the present chapter had been dealt with by the Government of India in the Resolution on the Report of the Text-Book Committee appointed in 1877. The Commission gave (paragraphs 376 and 377 of their Report) a summary of the suggestions made by the Text-Book Committee, and of the orders of Government upon them, and added the following recommendations:—

(1) That care be taken not to interfere with the freedom of managers of aided (primary) schools in the choice of text-books (IV, 10).

(2) That the Text-book Committees in the several Provinces include qualified persons of different sections of the community not connected with the Department, and that to these Committees should be submitted all text-books, both English and Vernacular, that it is proposed to introduce into schools, and all text-books now in use that may seem to need revision (VII, 22).

(3) That the Text-book Committees of the several provinces act as far as possible in concert, and that they communicate to each other lists of English text-books, and, in the case of those provinces which have any common language, lists of vernacular text-books which are satisfactory, and of books which they consider to be wanting or inadequate (VII, 23).

(4) That a general educational library and museum be formed at some suitable locality in each province, and that encouragement be given to school-papers or magazines conducted in the vernacular (VII, 3).

(5) That the operations of the existing Government depôts be confined as soon as may be practicable to the supply and distribution of vernacular text-books (VII, 24).

(6) That care be taken to avoid, as far as possible, the introduction of text-books which are of an aggressive character, or are likely to give unnecessary offence to any section of the community (VII, 25).

(7) That in the printing of text-books, especially vernacular text-books, attention be paid to clearness of typography (VII, 26).

The first three of these recommendations were designed to bring into prominence certain leading principles of the Government Resolution which had not in every case been completely carried out, while the others refer to points not touched upon in the Resolution. One of the orders of Government was to the effect that the Directors of Public Instruction "should devote a separate section in their annual reports to the subject of text-books, noticing how far the orders of the Government had been carried out, and showing what books had been revised during the year, and what new books had been added to the authorised lists." The following paragraphs contain a brief summary of the information given in this section of the provincial reports.

271. Text-books in Madras.—In Madras there was no permanent Text-Book Committee until the beginning of 1892. The Grant-in-aid Code prescribed text-books for use in each standard, but the managers of aided schools were allowed to substitute for these any other books previously approved by the Director. No special agency had been created for the examination of such books, and the Director was obliged to rely upon the voluntary assistance of specialists. In 1890 the Committee appointed to draft the Educational Rules recommended that the practice of naming text-books for each standard should be abandoned, and that the Director should publish a list of approved text-books.

This proposal was accepted by the Local Government, and, in order to carry it into effect, a Standing Text-book Committee was appointed in February 1892. The Committee consists of 26 members, most of whom are specialists in various branches of study; 18 members are officers of the Education Department, and the rest are non-officials. The functions of the Committee are—"(1) to recommend, for the approval of the Department, a complete list of suitable text-books on all subjects for use in recognised schools; (2) to advise the department, when suitable text-books are not available, as to the steps to be taken for the preparation and publication of such books; and (3) to help in forming, under the care of the Director of Public Instruction, a text-book library and museum of reference, which should contain (*a*) copies of all books recommended from time to time by the department, (*b*) copies of text-books prescribed in other provinces, (*c*) specimens of educational books in use in European schools, (*d*) specimens of maps, diagrams and apparatus suitable for use in schools of all classes." The Committee did not commence work till after the close of the period under review.

A change has also been made during the last five years in the mode of publishing text-books specially prepared for the use of schools in the province. Until the beginning of 1889 these books were published by Government, and were sold on commission by the Madras School Book and Vernacular Literature Society and the Basel Mission Book and Tract Depository, Mangalore. In March 1889 the Local Government decided to withdraw from the publication of school books, and to allow any person to print and publish an edition of any book of which the copyright belonged to Government upon asking for permission. The only restriction imposed was that the proofs should be approved by the Director. "All the Director need assure himself of is that the sizes, type and paper are suitable for use in schools, and that the edition is a correct reproduction of the original book." During the first year after the introduction of this system ten copyright books were published by five private presses, most of the books being printed at four out of the five presses. The result of this competition was a reduction in the price of the books, and an improvement in the quality of the paper, and in the size and clearness of the typography. During the year 1891-92 the same five presses sold 353,282 copies of Government copyright books, the value of which was R41,211. In spite of the freedom allowed pirated editions are not uncommon, and in 1891 two persons were successfully prosecuted for infringement of Government copyright.

272. **Text-books in Bombay.**—No mention is made in the Bombay reports of any Committee for the examination of English text-books, but there are committees at Poona, Ahmedabad, Dharwar, and Hyderabad for the preparation and improvement of vernacular school books. Readers and other text-books are published by the Department, and are prescribed for use in aided schools, but a note in the Grant-in-aid Code states that "books of equal difficulty and of recognised merit will be accepted by the Department." The departmental text-books are sold at central book depôts in Bombay and Sind, and at branch depôts in various parts of the province. In 1887 there were 215 of these branches, but the number has since been reduced to 22. The book depôts are self-supporting. There is an educational museum and library in Bombay, containing specimens of text-books, maps and diagrams, and models of furniture and apparatus; a list of new school books added to the library is published monthly in the "Bombay Educational Record." The museum is said to have been of the greatest help to all classes of schools, including schools in Mysore and Hyderabad. A considerable sum is spent annually on the purchase of useful books for distribution to schools and registered libraries; in 1891-92 this expenditure amounted to R6,381, and the number of registered

libraries was 136. In the same year the Dakshina Committee spent R3,363 on payments to authors.

273. **Text-books in Bengal.**—"The preparation of school books in Bengal Proper having for the past four decades been left almost entirely to private enterprise, the chief duty of the Education Department has been to make its selection out of the very large number of publications offered for its acceptance. This duty has since 1875 been entrusted to the Central Text-Book Committee, which now consists of 17 members, with Babu Bhudeb Mookerjea, C.I.E., as President. It is composed of the best scholars that we can find, and all of them are men of some distinction, no less than 16 of the members (including four European scholars) being also Fellows of the Calcutta University. Their position is such as to make them entirely independent, and there is not the smallest ground for the suspicion that they ever swerve from the path of duty under private influence ..... The Committee is for purposes of business divided into six Sub-Committees, namely, a Sub-Committee on English Language and Literature, consisting of 11 members; one on Bengali Language and Literature with 12 members; a third on Sanskrit Language and Grammar and Bengali Grammar with 7 members; another on History and Geography with 9; one on Mathematics with 6; and one on Science with 7 members. Publishers and authors of books on any one of the foregoing subjects generally submit to the Committee's office a sufficient number of copies of the work to be examined, for the use of each member of the Sub-Committee concerned. The Secretary or Assistant Secretary then forwards to each member a copy of the book with a covering letter, asking him to report on the book, in regard to its matter, manner, style, language, grammar, spelling, religious, political, and moral tendency, paper, printing, and price, and to state whether the book is recommended for school use or for prize or library purposes, and the school classes, if any, for which it is suitable. Each member submits in due course his report, which is tabulated in a book kept for the purpose; and every notice convening a meeting of the General Committee gives the names of the books to be considered at it, so that members may come prepared to support or oppose their introduction. If all the reporting members approve the book, it is as a rule accepted. In cases of doubt or grave differences of opinion, the book is subjected to an examination at the meeting itself in the light of the recorded opinions of members, and is either approved or rejected after a fair discussion as to its merits and defects. A book is sometimes referred back to one or more members for re-examination, on some special point elicited in the course of the discussion. The detailed proceedings are immediately printed and circulated to all the members and the Director for information. The proceedings are confirmed at the next meeting. The Director annually revises the list of text-books in accordance with the Committee's recommendations, and managers of schools are restricted to the use of the books named therein."

At first the Committee examined books for use in middle schools only, and the first complete list of approved text-books for these schools was issued in 1888-89. As this list has been gradually formed, some of the books have become antiquated, and in 1891 a Sub-Committee of four members was appointed to revise the authorised list; the Local Government placed at the disposal of this Sub-Committee a sum of R600 for the appointment of paid readers, whose sole duty it is to note objectionable passages for the consideration of the members. In 1891-92 the Committee undertook, at the request of the Director, to prepare lists of authorised text-books for high and primary schools also, and during the year no less than 467 books were examined, of which 152 were approved for school use, 82 for prizes and for inclusion in school libraries, and 233 were declared unsuitable for use in schools. A revision of the list of ap-

proved books, with the object of selecting moral class books, has been referred to in paragraph 263. Besides the Central Committee, there are Branch Committees for Behar and Orissa; the latter consists of 16 members, of whom only 4 belong to the Education Department. Many books were examined in 1891-92, but only two were approved.

The Calcutta School Book Society is the chief medium for the distribution of school books. It has numerous agencies in various parts of the province, and in 1891-92 the number of books sold was 217,913, valued at ₹83,755. "The Society exercises a healthy regulating influence over the prices of school books in Calcutta, which, in the hands of ordinary shop-keepers, have a tendency rapidly to advance when the supply falls short of the demand. In March 1891 the School Book Society was amalgamated with the Society for the Diffusion of Useful Literature, with His Honour the Lieutenant-Governor as its first President. The amalgamated Society receives a grant of ₹2,400 a year from the Government of India and ₹400 a month from the Government of Bengal. In the Useful Literature Branch, supplies of cheap and healthy books continue to be obtained from England, and disposed of to the public at the Calcutta depository and the mufassal agencies."

In 1886 the Inspector of European Schools obtained from the principal publishers of school books in England a large number of specimen books, to serve as a reference library for managers and teachers of European schools. There is also a collection of school books in the office of the Director, but proper arrangements have not been made to render it useful as a consulting library.

274. Text-books in the North-Western Provinces.—In these provinces there are four committees for selecting text-books for zila schools, and an equal number for vernacular schools. These committees belong to the four circles of inspection, but Rohilkhand and Kumaun, which together form one circle, are separated, the latter having its own committees, and the former using the books prescribed by the Oudh committees. In each of these committees an Inspector of Schools is President. In the Zila School Committee the members are head masters of zila and aided high schools, the proportion of each varying in different circles. All the Assistant Inspectors are members of the vernacular committees, as well as some Deputy Inspectors, the non-official members forming only one-fourth or one-fifth of the total. The lists of approved books are subject to revision by the Director. In aided schools the choice of text-books rests with the managers, subject to the conditions that "(1) the text-books for each standard must fairly cover the course implied in the approved standard; and that (2) no text-book must be used which is calculated to offend scholars who have no alternative but to attend the school where it is used or to give up education altogether, or which by a lax standard of morality may do harm to the scholars." Apparently some text-books are published by the Department, but the information on this subject is incomplete, as the provincial reports do not contain a section dealing with text-books.

275. Text-books in the Punjab.—The Punjab Text-book Committee was established in 1877, and was registered as an association in 1890. It consists of three *ex officio* members, the Director of Public Instruction (President), the Principal of the Central Training College, and the Registrar of the Education Department; twelve members nominated by Government, and an equal number nominated by the Punjab University. Its duties are more extensive than those of the Calcutta Committee, for they include the preparation, translation, and publication of books on all subjects included in school and college education, where suitable books are not already available, the development of vernacular literature, and the maintenance of a library and museum of reference. As in Bengal the separate branches of the work of the Committee

are dealt with by Sub-Committees, eight in number, one of which has charge of the reference library. The extent of the work done by the Sub-Committees is shown by the following extract from the report for 1891-92 :—

"The English Sub-Committee took in hand the revision of the Punjab Series of English Readers. The Urdú Sub-Committee, in addition to completing the Punjab Series of Urdú Readers, prepared Courses of Reading for the three classes of Middle Schools, took in hand the preparation of a series of Agricultural Readers for Zamindari Schools, the revision of the Course of Reading in Urdú for Normal Schools, and the preparation of Urdú Copy-books and Copyslips. The translations into Urdú of the various Courses of Physical Training were published during the year. The Technical Sub-Committee arranged for the Departmental text-books of Algebra and Euclid being thoroughly revised with a view to bring them up to the level of modern English text-books; prepared a Mensuration Manual for Middle Schools, and arranged with the Punjab Science Institute for the manufacture in their workshop of some Science apparatus. They also arranged for the lithographing of illustrations for the Fourth Urdú Reader. These illustrations were prepared in the Mayo School of Industrial Art and approved by the Committee. This Sub-Committee also took in hand the preparation of an Elementary Text-Book on Domestic Economy.

"The Gurmukhí Sub-Committee revised the entire Scheme of Studies for Gurmukhí Girls' Schools; translated the *Good House-Mother*, Parts I and II, and the *Way to Health*, and three District Geographical Readers, and adopted a Punjábí Course for the Zamíndárí Class of Normal Schools. The Hindí and Sanskrit Sub-Committee, in addition to overhauling the Scheme of Studies for Hindí Girls' Schools, translated the *Good House-Mother*, Parts I and II, and the *Way to Health*, and took in hand the translations of the Fourth and Fifth Urdú Readers; the Hindí Primer and the Second Hindí Reader were also revised and printed off. The History and Geography Sub-Committee, in addition to taking steps to improve the quality of the Punjab series of maps, took in hand the preparation of a series of Geographical Readers on the model of books on the same subject recently published in England. In addition, these and other Sub-Committees disposed of a large number of works submitted for patronage. Most of them were, as usual, found unsuitable, whilst the rest were in many cases approved and patronised by the purchase of copies for School Libraries.

"Very considerable additions were made to the Reference Library during the year, and a set of apparatus for Science teaching was purchased through the Punjab Science Institute, with the double object of encouraging a local manufacture and providing specimens for exhibition to School Managers and Teachers. Lists of additional apparatus suitable for exhibition have also been prepared. The special purposes served by the Library, as distinct from an ordinary public library, are yearly becoming more manifest. It is essential to the Committee's work; it is freely used by members of the staffs of the local Colleges and Schools, as well as by advanced students and by members of the Committee; there is no limit, as in the case of a public library, to the number of books that may be lent out to any one engaged in compiling a text-book; and any new text-book useful for educational purposes is at once obtained. There is no other library in the Province which could serve these ends. It has also proved useful in connection with the fixing of University Courses of Reading. During the year a more convenient classification of its contents has been adopted, and a new 'ex libris,' designed in the Lahore School of Art, brought into use."

The Government Book Depôt referred to in paragraph 383 of the Report of the Commission was closed at the end of 1884, and all books prepared under the orders of the Text-Book Committee are printed and published by the Mufid-i-'Am Press, the Committee receiving a certain proportion of the sale proceeds. In order to encourage the managers of elementary indigenous schools to use the approved text-books, the Department undertakes to supply such books free of cost for the use of boys passing in reading and writing in Standard I, and in three subjects in Standards II; III, and IV, and if these books are regularly used the instruction grants are raised 50 per cent.

276. Text-books in the Central Provinces.—In 1881 a Committee consisting of 13 members was appointed, of whom only four were members of the Education Department, the Inspector General and the three Inspectors. In the report for 1887-88 it is stated that all the books used in departmental schools had been approved by the Committee. "The Inspector General of Education is not necessarily bound by the recommendations of the Committee; the main responsibility rests with him; the Committee assist but do not control." The work of the Committee is not mentioned in the later reports. Most of the vernacular books used in the schools of the province are published under the orders of the Department, and are distributed by three Government Book Depôts at Nagpur, Jubbulpore, and Raipur.

277. Text-books in Burma.—The Text-Book Committee of Burma was created in 1879 to select or, if necessary, to prepare appropriate text-books of all kinds both in English and in the Vernaculars. It consists of four *ex officio* members and any other official or non-official members who may be appointed by the Chief Commissioner; the number of members is not stated in the reports. The mode of procedure differs considerably from that adopted in Bengal; every work submitted for criticism is examined in the first instance by the Editor of Vernacular School Text-Books, an officer under the orders of the Director. The report of the Editor is submitted to the Committee, and if further examination of the book is considered necessary, the Director, in consultation with the Committee, nominates a critic, who may or may not be a member, and who receives a fee for the work. Before coming to a decision the Committee may cause the book to be examined by a Sub-Committee, or by any member or members of the Committee. When a work submitted in manuscript is approved by the Committee, the Director arranges for printing and publishing it, and recovers the cost thus incurred from the sale proceeds. The Director, in consultation with the Committee, decides what text-books are required, whether translations, selections, or original works. Translations and selections are usually made by the Editor and his staff, but in some cases a bonus is offered for the best translation of a book. This plan has not been found very successful, for out of eight books thrown open to public competition "only two were taken up, and after 18 months the translation of one has come in so bad that the revision by the office will take six months."

The Government Book Depôt was closed in 1887, and the distribution of school books is now left to private enterprise, though the Deputy Inspectors of Schools are allowed to act as agents for the American Baptist Mission Press. During the last two years many books have been distributed gratuitously amongst the managers and pupils of schools in Upper Burma, where printed books were not formerly used. This has greatly facilitated the introduction of the departmental system, and books are now readily bought by parents for the use of their children.

In many subjects the code prescribes definite text-books for use in all aided schools, but the managers are allowed to select the readers in all languages, subject to the previous approval of the Department.

278. Text-books in other provinces.—In Assam there is a Text-Book Committee for the examination of books in Assamese; in other languages the books are selected from the lists prepared by the Calcutta Committee. In Coorg the schools are under the same rules as those of Madras, and a separate Text-Book Committee is not required. A book depôt was opened in Merkara in 1891-92, with five branches in other places. In Berar there is a Text-Book Committee, but its duties are not very onerous, for only seven books were submitted for examination in 1891-92, and only two books were reported upon. There is a central book depôt at Akola, with 29 branches attached to Government or District Board Schools in towns and large villages in all the districts.

STATISTICAL TABLES.